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ORIGINAL ARTICLES.

REPORT ON THE ADVANCES AND DISCOVERIES MADE IN THE STUDY OF CONTAGIOUS AND INFECTIOUS DISEASES.

BY WILLIAM LEE, M.D., BALTIMORE.

Address of the Chairman of the Section on Diseases of Children, May, 1884.

Opposed to specialties as they are generally practiced, as many of the best and wisest in our profession are, it must be admitted, nevertheless, that the formation of a Section on Children's Diseases by this Association was eminently proper, for not only has our example been followed by the British Medical Association, as shown at its last meeting, when a similar Section was inaugurated, but in these days, when the question as to division of labor in the science of medicine, as well as in other fields of human labor, is engaging so much attention, Pediatrics must sooner or later be allowed to hold that independent position which it deserves. This fact we are made to appreciate very forcibly through the leaves of the *Archives of Pediatrics*, lately started in our country, to which I hope each member of this Association will give his support. It is now four years since the establishment of this Section, and we believe the good effects to be derived are indisputable. Certain affections are met with in children only, and there are others common it is true to every period of life, but which are modified in peculiar ways when they occur in childhood.

The laws of the Association require the chairman of a Section to prepare and read in general session a paper, the reading of which shall not occupy more than forty minutes on the advances and discoveries in the branches included in his Section.

The contributions to medical literature in the Section over which I preside during the past year have been so numerous and important, that were I to attempt the complete review I would require more time than has been allotted me, and, possibly, not do full justice to those special diseases which are now claiming so much attention. I have therefore thought best to confine my report entirely to the infectious and contagious diseases of children, and in order to give as complete a review as possible, have deemed it wise to go back of the present year, particularly as at the last year's meeting no written report was presented.

DIPHTHERIA.

Dr. Carpenter[1] on the etiology and treatment of diphtheria, endeavors to show how by analogy diphtheria and potato-disease may be allied to each other, and then after mentioning the influence of sudden rise and fall of temperature, effects of sewers, impure milk, etc., gives facts to prove how the germ upon which he believes diphtheria to depend for its development, may be suddenly brought into activity, particularly amongst the poor, who allow their families to remain on wash-days in the steamy atmosphere of the rooms in which they not only do their work but likewise sleep.

He sums up this part of his article by classifying the conditions necessary for an outbreak of diphtheria under five heads:

1. The presence of certain forms of excreta.

2. Of an elevated temperature not much below blood heat, but below that requisite for the coagulation of albumen.

3. Of an atmosphere saturated with moisture, and probably also with (4) an excess of carbonic acid, or some other acid in the air by which the growth of the germ is determined, and (5) some other meteorological or electric manifestation at present entirely unknown.

For the treatment of this disease ammonia is recommended very highly, on account of its stimulating effects, to reduce acidity of the blood, and because it has been found in a number of cases of diphtheria that there is a rheumatic or gouty diathesis. In combination with the ammonia, lithia or potass. is generally given, and when there is an elevated temperature, he at once prescribes the sulpho-carbolate of soda, with the greatest possible benefit.

I would urge, says he, practitioners to continue the sulpho-carbolate in small doses, first with ammonia, and after a time with quinia, avoiding altogether the mineral acids—as such appear to allow of a more rapid development of the resting spores and a further relapse. For local treatment he strongly advocates washed sulphur, blown into the throat or by means of a brush with glycerine or honey.

While not being able to testify to the good effects of the internal treatment mentioned by Dr. C., I can bear testimony to the good to be derived from the local application of sulphur, particularly if used in the combination as first suggested by Dr. James

[1] *London Lancet*, Sept. 15, 1883.

Reed, of Savannah—which some of you may remember my calling to your notice last year. It is as follows:

℞ Resorcin .....grs. xxiv.
Tannic acid.....℥i.
Salicylic acid.....℥iv.
Boracic acid.....℥ii.
Flor. sulphuris.....℥ss.

M. ft.—Chart one. The above suitable for a child 4 years old.

S.—A small quantity to be placed on base of the tongue every two or three hours.

At the same time the powder is used, Dr. Reed gives resorcin internally, and believes it acts better than quinine in the treatment of diphtheria.

Dr. Henoch[1] considers that the undue way specifics are claimed for diphtheria, arises from its being confused with other diseases which it simulates.

Noticeable among these are cases of croupous angina, which in the first stage of the disease it is often difficult to distinguish from diphtheria. Specific diphtheria and non-specific croupous pharyngitis have also certain elements of difference, but they are not detectable in every case. The latter disease usually begins with violent fever, while the former ensues slowly with a moderate amount of fever.

In the non-specific oftener than in the specific there is in the beginning an invasion upon one side only, twenty-four to thirty-six hours elapsing before both sides are involved. The fact of the disease extending to the velum, particularly if the posterior pharyngeal wall be also attacked, makes the probability very strong that we have to deal with true diphtheria. But, after all, the condition of the nasal mucous membrane furnishes the chief criterion, for in the non-specific croupous form it is never attacked, while in the specific form it is almost invariably attacked.

Albuminuria is too often absent in diphtheria to be considered of importance in making a differential diagnosis. The author concludes by saying that although the scarlatinous form of diphtheria may follow quickly specific diphtheria, or *vice versa*, he is firmly convinced they can be differentiated.

Dr. Reese[2] has advised for the treatment of
theria a solution of bi-chloride of mercury in the proportion of one grain to four ounces of rain-water.

He orders the patient, if old enough, to gargle and rinse the mouth every two hours, and take afterwards internally a teaspoonful; should the disease be very severe, it must be done every hour. Within fifteen or twenty-four hours the exudation will disappear, but will return unless the remedy is continued. This treatment must be kept up for a week or longer, the strength of the gargle and frequency of use being regulated by the effects produced, namely: nausea, vomiting or purging. As long as the system is suffering from the poison, these symptoms will be absent. It is probable that the benefit arising from the bi-chloride is due to its influence upon bacteria, as demonstrated by Sternberg, and also to the remedy being rich in chlorine.

[1] Resumé in Jahrbuch, f. R. u. p. E, B. xx. H. Q.
[2] *Jour. Am. Med. Ass.*, Nov. 1, 1883.

Dr. Selldon[1] uses the cyanuret of mercury, one centigramme to 100 grammes of water—dose, two teaspoonfuls internally every hour day and night. Also, when children are old enough, allows them to gargle with a similar solution. In 1881, five cases were treated in the above manner, and four recovered; 1882, thirty-two, with only two deaths. Among those who recovered there were few paralytic sequelæ.

He also treated 200 cases of angina of the tonsils and fauces with the same solution, and always with good results. They were all treated with mercury upon the supposition that diphtheria might develop. As adjuvants to this treatment, he employed ice internally and externally, and when it could be borne, free stimulation. The latter procedure he considers very necessary in view of the danger of heart failure.

SCARLET FEVER.

Mr. R. W. Mullican,[2] in a paper on the Ætiology of Acute Specific Disease, and also in an article by Dr. John Meredith, some evidence has been brought forward to show that scarlatina may be evolved from diphtheria. The latter states, that towards the end of June, 1882, cases of illness of undoubted diphtheritic character occurred in the district of Wellington, Somerset county, London, where there neither was nor had been a case of scarlet fever for many months. Some of the earliest cases of diphtheria were very mild, and to this variety belonged the case of a housemaid in a family attended by him. This girl went one afternoon toward the end of June to see her father, who, it was found afterwards, suffered at the time with sore throat, but its specific nature could not be discovered, because he was not treated by a medical practitioner. A few days after this visit the girl became ill, and refused food, but made little complaint, and did not give up work, recovering in a day or two. Before being entirely well, her fellow-servant, the cook, was taken sick with sore throat and general weakness—upon examining her throat, several diphtheritic patches were found on the tonsils, which soon disappeared, and recovery followed, under treatment of tinct. iron, nitric acid and chlor. potass. gargle. The two servants occupied the same bed. In the house were three children, aged 8, 7 and 6, who passed much time with the cook, but this was stopped, as soon as the character of her illness was discovered.

However, on July 1, the oldest, a girl, complained of headache, sore throat, heat of skin, and some gastric irritation. On examination of her throat, it had a peculiar florid appearance, but no diphtheritic exudation. At the end of another day, scarlet fever rash came well out all over the body, and the case progressed favorably, with exception of much irritation of the bladder. The urine was found alkaline, of low specific gravity, and free from albumen.

On July 2, the youngest, also a girl, complained of head and ear-ache; was quite feverish, throat red, but no diphtheritic patches could be found; her condition resembling that of her sister, only there was not so much urinary irritation, and the rash was

[1] Archives of Pediatrics, No. 2, 1884, Jahrb. f. Kindhldke, B. xx. H. 4.
[2] *Lancet*, May 26, 1883.

more general, with higher temperature. An ulcer formed in her ear and discharged for some time.

On the 6th, the third child, a boy, age 7, was taken sick much in the same way as his sister, (she had been isolated from them for some days) and in due course the scarlatina rash came out all over his body in quite a typical character. This case proved a very mild one. At the time he was taken ill his mother became sick, her sickness beginning with a rigor, aching all over her body, and high temperature, which continued for several days. She had violent headache and free perspiration at intervals which left her prostrated.

Her throat had a reddish blush; nothing else. There was no rash anywhere over her body. Her illness in this case appeared to be diphtheria without the tonsil exudations that are usually seen, (possibly because she used freely antiseptic gargles). She had had scarlet fever in early life.

In conclusion, he forms the opinion that these cases of scarlet fever are evolved ones, a correlative out-come, and not the immediate result of contact.

In a very interesting article Dr. Oxley attempts to show that scarlet fever is not a very infectious disease, during the first two or three days, and says that such is the case, may be easily explained, if we only accept the theory that the fever depends upon specific germs being introduced into the body and bred there, and only becomes infectious after they are reproduced in the host and thrown off, either from the skin, throat or other secreting surfaces. There are exceptions where the disease when present, even in a very mild form, may prove infectious very early in the illness; but this is probably due to the fact that owing to the initial symptoms being mild this disease is only discovered after making considerable progress. In alluding to the possibility of the medical man carrying the requisite quantity of the poison, says, I have often been told that "you doctors carry fever in visiting from case to case." A friend of mine who has always something *apropos* to say when a remark of this kind is made, replied, "If we did so, we should have a great deal more doctoring to do." And this is true; for if the infection was carried by medical men, think for a moment how great the spread of fever would be.

He next alludes to the complication of rheumatic fever, a complication which has a very great pathological interest owing to the fact that it is a grafting of another disease. Rheumatic fever he says may come on during the course of scarlet fever as early as the sixth or eighth day, or during convalescence, when we think our patient doing well.

In speaking of the treatment in this complication the doctor strongly interdicts the use of the salicylates, because the skin and kidneys are both desquamating and not in a fit condition to be called upon to do any extra work. He relies upon quinine and tinct. of perchloride of iron in small doses, with application of a blister over the heart, where it is affected; or if they are contra-indicated, carb. ammo. and chlorate of potash in small but repeated doses.

[1] The *Lancet*, Oct. 27, 1883.

Tonge Smith[1] from an experience in treating 2,000 cases of scarlet fever, observed within the last three and a half years, has become convinced that the incubation period does not last more than three days.

Liechtenstein,[2] on the treatment of scarlatina, says that while his remarks are based upon an extended observation he has no new theories to advance.

The chief means on which he relies are cold baths, administered from the time the exanthem is well developed. He usually immerses the child from ten to fifteen minutes.

The antipyretic action of the baths becomes manifest not only in the reduction of temperature, but in the lessening or the ending of delirium, steadying of the heart's action and decrease of frequency of the pulse, with relief of dyspnœa, etc. While recommending very highly the cold water treatment, he gives five conditions which contra-indicates its use. (1) Cardiac collapse, or a tendency thereto. (2) Laryngeal stenosis, with diphtheria complications. (3) Inflammatory swelling and infiltration of the cellular tissue of the neck with venous obstructions. (4) Possible hæmorrhage from diphtheritic inflammation extending to the pharynx and nasal cavity. (5) The severe form of polyarticular synovitis and scarlatinous tendonitis, in which the slightest movements are painful.

Quinine the author has found less reliable as an antipyretic, and not without danger in children, on account of the possibility of quinine collapse. If given, it should be in small and rather frequent doses.

The author considers salicylate of soda far more reliable as an antipyretic, and gives it in half-gramme doses at intervals of half an hour, until the fever is controlled. He thinks its supposed unfavorable effects upon the heart are imaginary. For nourishment, milk, eggs, gelatine and nutritious soups are prescribed. If stimulants are necessary, they should be given in the form of red wine, cognac or champagne. Counter-irritations and massage are also beneficial.

CEREBRO-SPINAL FEVER.

Dr. Smith[3] in an exhaustive paper on the Etiology, etc., of this disease, reports as follows, that, according to Lyden and E. Sandier, micrococci seem to be associated with the cause of this disease, but proof is wanting that this germ bears a causative relation to it.

As it occurs in localities where the diet is to a great extent dissimilar, particular kinds of food have no influence as a cause.

Medin thinks that the infectious material is absorbed by the lymph-spaces of the nasal mucous membrane; which, according to Key and Retzius, communicate on the one side with the atmosphere through openings between the epithelial cells, and on the other side with the sub-arachnoid spaces at the base of the brain.

[1] *Brit Med. Jour.*, page 1,152, 1883.
[2] Rev. mens. des Mal. de l'E., Dec., 1883.
Archives of Pediatrics, vol. 1, No. 2, 1884.
[3] *New York Medical Record*, 1883. Nov. 24; Dec. 1, 8, 15, 22.

In winter a greater number of epidemics occur than at any other season, on account of overcrowding and poor ventilation.

Causes which predispose to this disease are anti-hygienic unsanitary conditions, overwork, lack of sleep, prolonged abstinence from food; followed by over-eating indigestible and improper food.

In children who worry over their studies, and are easily chagrined at being reprimanded or punished, there seems to be an especial liability to attacks of this disease.

(I have met with three cases during the past winter, when this was positively demonstrated.)

Males are more frequently attacked than females.

Symptoms.—In the 36 cases tabulated, the disease showed itself between midday and midnight, beginning with violent headache, vomiting and aslight chill, but usually without any premonitory symptoms.

In children, clonic convulsions take the place of the chill. Stupor or coma follows, and when the patient can be aroused, complaint is made of pains in the trunk and extremities.

The pupils are dilated in the early stage of the disease, or less frequently contracted, and if the attack be severe, they respond to light feebly, or not at all.

Pain in the head is very sharp and lancinating during the first week.

In children the pulse is more or less accelerated.

The respiration is proportionately faster than the pulse, which fact, possibly, is owing to tonic contraction of the abdominal muscles.

Temperature.—Although the surface does not indicate it, the temperature is above normal. Wunderlich has recorded one or two severe and fatal cases when the temperature was as high as 110°.

Tonic contractions of the cervico-occipital muscles and back begin in all typical cases from the first to the third day, but to a less degree in those of the abdomen or lower extremities.

The hearing may be entirely lost, and not regained, as the result of otitis media.

Urine contains occasionally a small quantity of albumen.

Complications.—Croupous pneumonia and arthritic rheumatism are the most frequent and fatal. Strabismus is common.

Sometimes the sight of one eye is completely destroyed by inflammatory changes.

Nature.—Evidence is strongly in favor of its being a constitutional malady, with meningitis as a local manifestation.

Anatomical Characters.—The most common abnormal appearance of the blood observed at the autopsies is a dark color, with unusual fluidity and some dark clots; the meninges of the brain and cord are hyperæmic, with exudations of serous, fibrinous and purulent nature.

The brain is softened; ecchymoses are present.

Prognosis.—Patients who live beyond the first week without serious complications will probably recover.

Numerous and large petechial eruptions show a profoundly altered state of the blood, and are therefore a bad prognostic, and so is continuous albuminuria. Under the age of five and over that of thirty the prognosis is less favorable than between these ages.

Diagnosis.—Owing to the nature and severity of its symptoms, and the suddenness of its attack, cerebro-spinal fever may be mistaken for scarlet fever, and *vice versa*. From the common form of meningitis ordinarily there is no difficulty. Continued fever, typhoid or typhus, somewhat resembles cerebro-spinal fever, but it lacks the muscular contraction and rigidity which characterize the latter.

Treatment, Prophylactic.—All measures looking to a good hygienic and sanitary condition must be strictly enforced during an epidemic.

Curative.—Efforts must be made at once to relieve the intense inflammatory congestion of the cerebral and spinal meninges. For this purpose bags or bladders of ice answer well; they should be used over the head and nucha.

In convulsions, hot mustard foot-baths.

For internal treatment, large and frequent doses of the bromides and ergot stand at the head of the list.

When headache is severe, and there is much restlessness, opium and chloral.

In the latter stages of the disease, iodide of potass.

The doctor concluded by saying that no disease requires more urgently kind, intelligent and constant attendance night and day.

TYPHOID AND TYPHUS FEVER.

[1]Amongst the various forms of typhoid fever which occur in children, it is scarcely necessary to insist upon the importance of diagnosing the transient variety which so frequently escapes observation.

The premonitory symptoms are so vague, and the headache, restlessness at night, constipation and fever are so ill defined and so slight that it is no easy matter to discover them. When the affection is once declared, however, it remains for some time, the chief symptom being that the child does not sleep, whilst the tongue is somewhat red, and the abdomen is slightly swollen.

The spots are often difficult to see on account of the local applications which have been employed; but at a later stage the fever become well defined with morning remissions until the fifteenth day, when the patient begins to convalesce.

Ashby[2] says typhoid fever more often aborts in children than in adults, that is the disease runs a course of two weeks instead of three or four.

The onset in the majority of cases is very gradual.

Temperature.—Morning remissions are greater than in adults.

Tongue not specially characteristic.

Abdomen as a rule is gradually distended.

Spleen can be felt in some cases.

Rose Spots seen in 39 out of 50, or 78 per cent., and are observed either on abdomen, chest or back.

Diarrhœa is slight.

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[1]*Practitioner*, June, 1882.
[2]*Practitioner*, June, 1881.

Complications are principally pneumonia, bronchial catarrh or bronchitis.

Hæmorrhages from the bowels are rare.

Relapses are by no means uncommon.

Mortality.—Barthez and Rilliet, Hillier, Gerhardt and others, place the death-rate of children from two to twelve years at 10 per cent.

During nine years in our hospital at Manchester, 265 cases have been treated, with twenty-one deaths, making a mortality of nearly 8 per cent.

Treatment.—Little medicine is required, excepting for the purpose of lowering the temperature, unless complications arise.

Tompkins,[1] in giving the clinical features of 164 cases of typhus fever seen by him in the last two years, says that 17 were in children under 10 years.

The initial symptoms in these were less pronounced, rigors being often entirely absent or unnoticed. Headache was usually the only thing complained of, which had accompanying it a rise of temperature seldom higher than 103°F. There was a marked difference in the mental symptoms from those of the adult. At the end of three or four days the patient became exceedingly torpid and lethargic, remained for hours in a dull, heavy sleep, as if under the influence of some narcotic, and could be roused with difficulty. This continued for from four to six days without much real or active delirium. During this time the temperature generally falls, gradually in some, in others more rapidly, becoming normal by the end of a week from its onset. They now would begin to brighten and go on to rapid convalescence.

Sometimes from the commencement of the disease there is a steady decline in the temperature.

The rash, which was not at all characteristic, varied in its occurrence, and in at least half the cases it was difficult to define any true rash.

A dirty mottling of the skin is frequently all, and is seen on the face as well as elsewhere; it is accompanied by a flushed look, and lasts only three or four days.

Prognosis is most favorable. All the seventeen cases recovered. Murchison gives the mortality under ten years as 35 per cent., and under five years 6 per cent. Lebert put it at 27 per cent.

Dr. Tompkins closes the article by calling attention to the great difficulty in making diagnosis when the epidemic commences among children.

MEASLES.

Dr. Meedigan[2] records three cases of insanity which occurred either during the course of, or in convalescence from measles. The youngest of those affected was 15, and the oldest 26 years.

Dr. Pellerean[3] calls attention to the influence of malaria during an epidemic of roseola and measles.

In many cases of roseola which appeared first, the fever would assume a remittent type, either preceding the rash for from two to eight days, or the rash would precede the fever. Then again, both fever and rash would declare themselves simultaneously. The severe symptoms noticed were headache, heat of skin, furred tongue and vomiting.

That the febrile disturbances were caused by malaria intervening, he thinks was demonstrated by the rapid reduction of the temperature under the influence of quinia. When fever subsided, sweating profusely set in, and, unlike what is the case both in roseola and measles, the temperature fell, and continued to do so when the rash appeared. The rash presented two distinct varieties. It was either uniformly red, not unlike scarlet fever, or consisted in small dots, slightly elevated above the skin, more or less disseminated at first, and then coalescing so as to form large patches, completely disappearing under pressure, and giving rise to itching.

Long after the fever had subsided, the eruption of roseola was often seen to persist, and to be followed by very little desquamation. Relapses were common, and an attack of it seemed to confer a predisposition to measles, especially among infants and children.

Like roseola, measles presented in its symptomatology most important modifications and variations. All classes and all ages were affected with it, except Chinamen. The incubation period varied from two to nine days.

There was entire absence of any prodromic stage, most cases being ushered in by fever, which soon assumed the intermittent or remittent type.

The rash, which appeared in a few days, had but little, if any, influence on the character of the fever.

Later in the disease, the spleen was often found more or less enlarged from effects of the malaria.

Besides the usual complications, there was congestion of the liver and hepatitis, both of which were ushered in suddenly with pain in the right shoulder, pain and tenderness in the right hypochondrium—vomiting, icteric tint, furred tongue and shivering. In some cases preceded by dysentery, and in others not.

With the exception of quinine, in most cases the treatment was upon a merely expectant plan.

Prof. Demme[1] in a report on an Epidemic of Measles and its peculiarities, mentions two cases, one a girl suffering from chorea, and the other a boy, 9 years old, suffering from prurigo—both of whom were freed of their respective diseases upon measles appearing; also that of a child three years old who had measles twice in ten weeks.

Dr. Keating[2] gives a very interesting report of a recent epidemic of measles, and in it calls especial attention to the following points, viz: the microscopic examination of the blood and the constant association of *micrococci* with the general manifestation of malignancy, (a condition already well known), and the gradual but positive amelioration of all bad symptoms by treatment, which was directed to the micrococci as the *fons et origo* of trouble.

The investigations were all carefully made with the assistance of Drs. Henry F. Formad and W. A. Edwards.

After giving the history of a number of fatal cases

[1] *Brit. Med. Journal*, Dec. 15, 1883.
[2] Journal of Nervous and Mental Disease, 1883.
[3] Dr. G. E. Pellerean, October (London) Practitioner.

[1] Jahrbuch f. Kindhlkde, B. 19, H. 2.
[2] Transactions of the College of Physicians of Philadelphia. Third series, volume vi.

with their post-mortem, the result of which showed death to be from the gradual forming of right side heart-clot, he asks the question, What causes it?

In January, 1882, No.—, *Amer. Journ. of Med. Sciences*, Dr. K. gave his experience in a number of cases of diphtheria, scarlet fever and measles, and at that time attributed the condition to an increase of fibrine, due to the rapid tissue-changes and the malignancy of the type of disease, and urged the importance of pushing an alkaline treatment from the start.

In these cases the microscope in Dr. Formad's skillful hand has shown that this condition is due to something more; for the moment the symptoms of malignancy appeared, examination of the blood demonstrated micrococci to be present in large quantities. These micrococci appearing coincident with symptoms of malignancy, all remedies should be addressed to check their development, and with this end in view he asked Dr. Formad what, in his experience, most readily arrested the growth of micrococci in his culture solutions, obtained from erysipelas, diphtheria, etc.; he answered, *alcohol.*

The other remedies were at once withdrawn and whisky substituted, which was given in frequent and small doses. This treatment soon began to show its beneficial effects, and with the assistance of arsenic the blood became normal, recovery following in a short time.

In order to test the microscope, Dr. K. with Drs. Campbell and Markoe, after carefully examining a number of cases, got Dr. Formad to examine the blood of each without reference to their condition of which he knew nothing, and in only one were micrococci present, that being a case with all the malignant symptoms.

Vegetable acids the doctor says also have the effect of checking the development of micrococci in culture solution, especially acetic acid; but the mineral acids, also carbolic acid, it is said, has no such action. Bi-chloride of mercury also possesses this quality to a very marked degree.

Rötheln.—Dr. Reed[1] reports the following facts observed during the progress of a number of cases at Atlantic City, of Rötheln or German measles:

The almost uniform enlargement of the chain of cervical lymph-glands. The apyrexial character of the disease: the temperature rarely rose higher than 100 or 101°, and always falling to the normal on the second day.

There was little if any constitutional disturbance; some of the children were allowed to run about the streets, covered with a formidable-looking eruption, without a suspicion of their suffering from anything but a tooth-rash.

In some of the cases there was desquamation, and in one instance slight albuminuria and dropsy following the attack. Three cases occurred in one family in a modified form. One a boy of five years presented a decided dermatitis, involving both cheeks, and in a less degree the sides and front of the neck; the skin was fiery red, very finely punctated and hot to the touch, and the lower eyelids were œdematous; temperature of rest of body and pulse normal. Another a girl of three years, had diffuse punctated rose-colored rash, covering the whole thorax and extending slightly to the abdomen, the rest of the surface being entirely free; at the same time there were two patches of genuine dermatitis, three inches in circumference, upon the breast.

The eruption did not disappear in either of these cases until the fourth or fifth day, a somewhat longer duration than usual. The third, a child, had slight erythema of the fauces and a fine punctated rash on the tonsils and velum palati, but no rash on the skin.

Dr. Maclean[1] says he treats measles very successfully with the following mixture, which should be given every three hours: Ipecacuanha wine, half drachm; syrup of squills, half an ounce; quinia, two grains; acetate of ammonia, liquor, two ounces. Dose for a child two or three years, a teaspoonful in water. The quinia to be increased according to age.

We have thus in this mixture a stimulating expectorant and diaphoretic to relieve the skin, and also in the quinia a specific to destroy or abate the violence of the primary ferment. When cough is very irritating, tinct. of hyoscyamus may be added.

As the quinia is essential for the destruction of the ferment, when the stomach is irritable it may be omitted from the mixture and given in powder mixed with saccharated carbonate of iron, which diminishes the irritating action of the drug when taken alone.

This form of treatment for measles is good in all types of the disease, whether the attack be mild or severe, but more especially valuable when we have that dangerous form in which the eruption is of a deep purplish color, a form which is generally recognized as being the most fatal.

VARIOLA AND VACCINIA.

Dr. Stewart[2] refers to a case reported by Dr. Richard S. Stewart, in which a child was born with pustules over its body, and died on the fourth or fifth day of smallpox, mother having been attacked two weeks before parturition with this disease.

Dr. Roger McNiel[3] says that so far statistics go to show that under ten years the initial rash is extremely rare, and that comparatively few vaccinated children under that age are affected with smallpox.

Dr. I. E. Atkinson[4] saw a woman, under care of another physician, who, immediately preceding her confinement, was living in a room with a case of confluent smallpox. She was successfully vaccinated, and six days and nineteen hours after gave birth to an apparently healthy child.

Three days after her labor her child was attacked with the disease, but of the discrete variety, and recovered without secondary fever or subsequent pitting.

He thought the results of this case indicated a protection.

In April, 1881, Dr. Leonhard Voigt,[5] the superin-

[1] *Phil. Med. Times*, November 17, 1883.
Archives of Pediatrics, January, 1884.

[1] *London Lancet*, October 13, 1883.
[2] *Maryland Medical Journal*, May 1, 1882.
[3] *Edinburgh Medical Journal*, November, 1883.
[4] *Maryland Medical Journal*, March 1, 1883.
[5] *British Medical Journal*, December 22, 1883.

tendent of the Vaccine Institute at Hamburg, experimentally solved the vexed question of the origin and nature of cowpox, and in his most recently published report sums up the results of his observation under nine heads, which may be looked on as an epitome of the whole question:

1. It is possible to create vaccine by the inoculation of the calf with lymph from the pustules of human beings, the subjects of smallpox; but success must not be expected in every case.

2. The energy of variola-vaccine obtained in this way is such, that it is not fit for the purpose of vaccinating human beings until it has been several times transmitted from calf to calf, or from ox to ox, and its intensity has been thus diminished.

3. In the first year, this new lymph has a greater protective power than animal lymph of older stocks.

4. Vaccinia and variola are derived originally from the same contagion, and give to those affected by them an immunity one against the other.

5. The duration of this immunity depends on the intensity of the pathological process.

6. After the lapse of twelve years, persons who have been attacked with smallpox show the same susceptibility to vaccination as those who have been vaccinated at an equally remote period; consequently, children of 12 years of age, vaccinated in infancy, present a moderately favorable soil for the poison of smallpox.

7. Therefore, re-vaccination of all children at or even after the age of 12, is highly to be recommended.

8. Animal lymph, originally very active, diminishes in efficacy when transmitted from calf to calf, sooner than humanized lymph transmitted from arm to arm. On the whole, *i. e.*, after a long time humanized lymph gives better results both in man and beast; whence it follows that animal lymph from old stocks gives less success than retro-vaccine of the first generation.

9. Carefully generated, and in well ventilated and regulated stalls, variola-vaccine is the most energetic of all, not only when taken direct from the calf, but especially in its humanized form. Consequently, if we would obtain the most powerfully protective lymph, we should, when occasion offers, from time to time reproduce a stock of variola-vaccine.

Dr. Page on treatment says: I have been so much pleased with the apparently abortive action of actea racemosa on variola, in the case of a negro man who had "just moved to Baltimore," and on four of his children, all of whom had the disease coming out in rich profusion—that I made a note of the fact.

Under the use of this drug the cases progressed to the papular stage, and in the case of the father pustulation took place only on the face; but in the cases of the children, the secondary fever and pustulation did not take place. The actea racemosa was administered in the form of the tincture with simple elixir. I have had no opportunity to try the medicine except in that one family.

Rosenthal,[1] acting on an article by Boyer, has employed salicylic acid in many cases with good results. His formula is the following:

℞. Acidi salicyli.....3i.
Spts. vini rectificati.....3ss.
Misc. et adde elix. simplices ad..3vi.

For the angina of variola, he uses in conjunction with this the following gargle:

℞. Xylol.....3i.
Gum acacia.....3ii.
Aquæ menth. pip.....3vi.

M.ft.—Emulsio.

Sig.—Use as a gargle and mouth-wash.

He confirms the statement that salicylic acid in smallpox reduces the temperature, is sedative, and modifies the eruption.

[1] *Med. Bulletin and Virg. Med. Monthly*, November, 1881.

MUMPS.

MM. Cabitun & Charrin,[1] at a recent meeting of the Biological Society of Paris, gave an account of the investigations in which they have for some time been engaged, on the presence of minute organisms in the blood of persons suffering from mumps. These are multipliable by cultivation in Liebig's broth, and are found to consist of minute *batonnets*, but chiefly of micrococci all in a state of motion. These minute organisms, they consider, corroborate the clinical observations which tend to place mumps among the infectious diseases.

The absolute proof that this disease is due to these minute bodies by reproducing it by inoculation of the cultivated forms, has not been attained by the experiments made to that end.

William H. Walter, M.R.C.S., B.M.J., Dec. 22, 1883, reports the following case in a boy of 14 years:

He had been ailing for a week with "a bad cold and sore throat," it was stated. He was found unconscious with contracted pupils, tem. 105, 5° F., rapid feeble pulse. The history given pointed to mumps, though the parotid glands were not swollen.

A day or two before a sister had been seen with a pain and soreness about the jaws, and a little later, a case of undoubted mumps occurred in the same family.

These circumstances sufficiently establish the fact that the primary affection in the case was mumps. The high temperature lasted two or three days, but the cerebral symptoms of delirium, coma, etc., for nearly a week. He made a slow recovery. Attention is called to the fact of the great frequency of meningitis as a metastasis and to the combination of this with orchitis. This combination, the writer believes, has not been recorded.

INFANTILE DIARRHŒA.

Ballard[2] on the Etiology and Pathology of Summer Diarrhœa in Children, says that while the subject-matter of his paper is far from complete, some of the conclusions come to are as follows: The disease cannot be considered a simple diarrhœa, but rather an affection of the system at large, which can in less than twenty hours produce lesions of considerable greatness. Autopsies have unfortunately been

[1] *Gaz. Med.*, Dec 17, and *Med. Times*, Dec. 31, 1881, and *London Practitioner*, vol. 29, 1882.

[2] *British Med. Journal*, Aug. 25, 1883.

too seldom performed; notwithstanding this, they show the pathology of summer diarrhœa to be somewhat analogous to that of cholera. This disease is not the result of a relative lack of attention, which happens to children in the great manufacturing centres: for example, while three centres, Leicester, Nottingham and Preston, head the list of infant mortality from summer diarrhœa, three other centres not less important, Oldham, Rochdale and Halifax, occupy the foot of the same list.

Another cause of diarrhœa which is very much dwelt upon by some men, is the use of feeding-bottles; but the author says he is satisfied they have nothing to do with it, at least not leading causes. Artificial alimentation is also a decided factor in the mortality of this disease, for, of 341 children dying from the cause in question, only 2 per cent. were fed with breast-milk. Cow's milk, which formed the nourishment of 60 per cent. of them, is far from being a faultless means of nourishment. The influence of elevated temperature is undeniably efficient in producing this disease, and that influence remains even after the months of autumn.

Speaking in general terms, it may be said that in great cities the maximum of heat in July will have a direct bearing upon the maximum of mortality from infantile diarrhœa. The fetid exhalations of sewers have been accused by certain hygienists as the cause of this trouble, and admitting that there may be some room for such a charge, it is to be observed that Nottingham, which possesses no sewers, has a high death-rate from infantile diarrhœa.

Excrementitious odors are also potent causes, but not the most influential, as proven, at least at Nottingham, for there the matters are removed twice a week, and these odors are unknown, and, nevertheless, it has a high death-rate. On the other hand, Helston, which, from this cause, is one of the most infectious localities in the United Kingdom, suffers very little from infantile diarrhœa.

We are, therefore, led to infer from all this, that further information is required in the light of well-reported cases, and post-mortem examinations carefully made, before the true etiology of this disease can be reached.

Morison[1] has published a paper on Infantile Diarrhœa and its Treatment, and in it refers especially to two forms, milk diarrhœa and teething diarrhœa. For the former he considered mild cholagogue remedies the best, and gives with the view of gently effecting biliary secretions, one or other of the following: euonymin, podophyllin, phosphate of soda, or ipecacuanha, these having been found, according to Rutherford's[2] experiment, the best. A small quantity of an alkali may be sometimes added to each dose.

The quantity used is just sufficient to secure the digestive, without the purgative action of bile.

For the latter form of infantile diarrhœa, besides the gum lancet, nervine tonics and sedatives are advised, arsenic, oxide of zinc, bromide of potassium, or ammonium and camphorated tincture of opium, especially the two latter, and usually with evident benefit.

Dr. Christopher Elliott[1] recommends the infusion of chamomile flowers as highly beneficial in infantile diarrhœa, especially when proceeding from dentition, and when the stools are greenish in color, or are slimy and streaked with blood, it will quickly calm a fretful child. The dose of the infusion is ℥ss to ℥i for a child under one year; for a child over that age double, three times a day or oftener, according to the severity of the attack.

The *rationalé* of the treatment is the power which chamomile flowers possess of subduing reflex excitability, this power belonging to the volatile oil they contain.

Dr. Lewin[2] gives, with great success to very young infants, the soluble albuminate of tannin, made by adding white of egg to a solution of tannin; the white of egg must be previously beaten up with some water.

ERYSIPELAS.

Dr. Lawrence[3] draws our attention to the importance of bearing in mind the frequency of infantile erysipelas. It may originate from either puerperal fever or some epidemic influences prevailing at the time of birth. Again, erysipelas may occur as an idiopathic expression of a blood infection. More frequently, however, it has a traumatic origin, the starting-point being the umbilicus, but any abraded cutaneous surface renders the disease possible, as eczema, intertrigo, impetigo, cicatrizing vaccine pustules, etc.

As illustration, a case is cited of an infant, in whom vaccine scabs were separated some days after vaccination, who was handled by an aunt, just from the country, who was recovering from erysipelas. The next day the infant was restless and refused food, and on the following day erysipelas began at seat of cicatrices, spreading rapidly along the arm.

Dr. L., besides advising the usual treatment, lays great stress upon the importance of paying strict attention to bodily cleanliness, and to the hygiene of both the lying-in room and nursery.

W. A. Macleod[4] reports a case to substantiate the infectious nature of erysipelas. Whilst visiting a Mrs. F. during her puerperium he was asked to see her child who had been taken ill on the previous day. He diagnosed the case as erysipelas. Shortly after he saw a woman who had been visiting the child, and frequently played with it, and he found that she had taken the disease.

WHOOPINGCOUGH.

It has been rightly said that until lately the profession has bestowed but little, if any, serious scientific attention on some of the commonest maladies to which flesh is still heir, and whoopingcough seems to be most conspicuously of that number.

Prof. Rossbach,[5] after studying the conditions presented by the larynx and the air-tubes in all stages of

[1] *British Med. Journal*, August 25, 188 .
[2] *Brit. Med. Jour*, Vol. I, 1879.

[1] *London Practitioner* of Dec., 1882.
[2] *Centralblatt fur die Medicinischen Wissenschaften*, Jahrgang 1883.
[3] *Brit. Med. Jour.*, Dec. 1, 1883.
[4] *Brit. Med. Jour.*, Nov. 3. 1883.
[5] *Berlin Klin Wochenschrift*, Nov. 18, 1880.

the disease in four children, respectively six months, four, seven and ten years, and in a woman, says that in regard to the essential nature of pertussis, bronchial catarrh must not be regarded as a mere complication, but as immediately connected with the very existence of whoopingcough. The disease has its seat especially in the large bronchi. The violent attacks of coughing, however, cannot be attributed exclusively to bronchial catarrh, nor to masses of mucus reaching an irritable region of the trachea, since bronchial catarrh under similar circumstances may occur without inducing coughing of equal intensity or duration.

He further says that the attacks of coughing are not alone produced by the mucus, but also by the irritation of the violent draughts of air accompanying forced respiration. One of the essential etiological conditions is the existence of a reflex neurosis, and he thinks it probable that in whoopingcough the coughing centre in the medulla oblongata is in a state of abnormal excitability owing to the presence of some specific virus, so that a slight peripheral stimulus conducted through the centripetal fibres of the superior laryngeal nerve is sufficient to excite coughing.

The results of treatment, he considers, support these views. After finding that change of air produced no effect, he endeavored to restore the nervous apparatus to the normal stability in the younger children by transmitting a strong, constant current through the spinal cord, and obtained favorable results; at the same time he administered to the older children quinine in large doses, the latter producing its effect by lowering the excitability of the medulla, and not, as Letzerich believes, by its local lethal action on a supposed fungus, since it was given in the form of capsules.

M. Gueneau de Mussy[1] has constantly found enlargement of the mediastinal glands and compression of the recurrent laryngeal nerves in children that have died of whoopingcough. He regards the compression of the nerves and consequent irritation as the cause of cough, and considers whoopingcough to be an eruptive fever in which the eruption is internal.

Its stages are local lesion of the pulmonary mucous membrane, enlargement of the peribronchial glands, compression of the recurrent nerves and cough.

Dr. Burger[2] not only believes in the germ theory, but thinks he has discovered in the sputa in cases of whoopingcough certain organisms which he holds to be specific and the cause of the disease. These organisms he describes as small, rod-shaped structures.

Toeplitz,[3] of Breslau, mentions whoopingcough as being treated successfully by means of various kinds of powder which were blown into the larynx by means of an insufflator or gum-elastic balloon. Salicylate of soda was principally used.

Robert Lee,[4] applying the general principles of antiseptic treatment for the cure of this affection, used carbolic acid, combined with turpentine, benzine, or one of the fragrant oils; he also tried sulphur in frequent and small doses, and has obtained from them sufficient good results to warrant a suggestion that trial should be made of other volatile agents, such as creosote, oil of amber, etc., he also adds that the common plan of stirring some tar with a hot poker in the room where cases of whoopingcough are is certainly attended with benefit, and is largely used in hospital practice by him.

Prof. O. Heubner[1] has tested the comparative action of five of the most common remedies in this disease, viz.: bromide potassium, quinine, hydrate chloral, salicylic acid, and belladonna. The bromide was given in doses 7 to 45 grs. per diem in aquæous solution, in twenty-three cases; salicylic acid in a ⅓ to ½ per cent. solution, as inhalations with Siegle's spray-producer, about an ounce being used at a time, in seventeen cases, and belladonna in doses of ¼ to 1 grain per diem, in eight cases. In none of the twenty-three cases in which the bromide was given, was the duration of the disease lessened. Chloral was given in divided doses, in two, and an enema, in eight cases. In two, the duration of the disease was lessened, and the intensity and length of the paroxysms, in six cases. Salicylic acid was given by inhalation in sixteen, and as salicylate of soda internally, in one case.

In two, the duration of the disease, and in ten, the length and severity of the paroxysms were lessened. Belladonna was given in eight cases. In three, the duration of the disease, and in one case the intensity of the paroxysms were lessened.

Thus salicylic acid and chloral tend to relieve the paroxysm; belladonna and quinine to shorten the disease.

Dr. John Dewar[2] calls attention to ergot as being the safest and best remedy.

This conclusion he came to after extensive trial of a vast number of useful drugs, viz.: Bromide potass., belladonna, and zinc.

He says ergot seldom fails to cure whoopingcough in from one to three weeks, the cases longer in getting better being those complicated with bronchitis, or with troublesome bronchial catarrh.

The dose used was 4 to 15 minims of the fluid extract every three or four hours, to a child of 3 months and upward.

In reference to how ergot acts in whoopingcough, he says: "I regard the spasmodic cough as due to reflex action, and that in its turn brought about by the peculiar condition of the blood irritating the peripheral ends of the sensory nerves. Ergot dulls or paralyzes these nerves, and so lessens and eventually prevents the spasms."

Although he considers the true pathology of whoopingcough yet to be doubtful, regards it as a germ disease, as only on that ground can its infectious nature be explained.

I have used ergot both in the form of ergotin and the fluid extract for various cough troubles, notably

[1] *London Practitioner*, Vol. 18, page 292.
[2] Berliner Klin. Wochensch., Jan. 1, 1883.
[3] Breslau, Aerztlich, Zeitschrift, 1880, No. 3.
[4] The *Lancet*, May 7, 1881.
[4] *London Practitioner*, Vol. 27, page 208.

[1] Jahrb. f. Kinderk, B. 16, Wien, Med. Zeitg. No. 39, 1881.
[1] *London Practitioner*, Vol. 28, page 217.
[2] John Dewar, L. R. C. P., on Physiological and Therapeutical Action of Ergot, *London Practitioner*, Vol. 28, 1882.

whoopingcough, since 1881, when my attention was first called to it as a cough sedative by Dr. James Allen.[1]

The doctor claims that when used hypodermically it is a remedy having notable power in allaying coughs of various lung conditions, and in diminishing sputum. I have found it acted as well, if not better, when given internally.

Ergot seems to have been first prominently brought forward in the treatment of whoopingcough by Dr. Griefenkel,[2] who reported the case of a boy 6 years old whom he cured in eight days by the use of this drug. While being able to endorse Dr. Dewar's statements in regard to ergot in the treatment of whoopingcough, it must be borne in mind that there often arise stages of the disease in which other remedies must be used at the same time, viz.: If there is much febrile disturbance, aconite should be used, and is probably the best; in cases where subacute catarrhal bronchitis ensues, alum, owing to its astringent, bracing and tonic action on the blood, mucous membranes of the stomach and air passages, will be found, if given in small doses, very serviceable.

W. Squire[3] finds that an aqueous solution of ethyl bromide, strength 100 to 200, gives good results in whoopingcough. Half to 2 ounces should be used at a time.

Dr. Cullimore[4] offers the following prescription for whoopingcough, which, while containing nothing new, is worthy of notice:

℞. Aluminis sulph.....grii.
Tinct. belladonna.....miii. to v.
Tinct. cinchoniæ.....mxii.
Syrupiaurantii.....℥ss.
Aquæ.....℥ii.

M. ft.—Suitable dose for a child of the age of 4 years.

M. Campardon[5] has employed carbonic acid in this disease.

The gas was formed in a seltzer water apparatus, which is conducted by rubber tubing to the nostrils, where it was slowly delivered.

Cure in one was complete and rapid. In using the carbonic acid, it is necessary that the gas be charged with vapor of water.

[1] *British Med. Journal*, Jan. 29, 1881.
[2] *Edinburgh Med. Journal*, 1863.
[3] *London Lancet*, 1883.
[4] *British Med. Journal*, Feb. 2, 1884.
[5] *Jour. de Med. de Paris, Canadian Practitioner*, March 1, 1884.

MILK TREATMENT OF DISEASE.

BY JAMES TYSON, M.D., PHILADELPHIA, PA.

(Read before the Section on Practice of Medicine and Materia Medica of the American Medical Association, May, 1884.)

In the course of a somewhat extended experience with what is known as the "milk cure," it has occurred to me that the growing popularity of this form of treatment, demanded, at this time, some systematic consideration of the principles and practice on which its use is justified, as well as an outline of the class of cases in which it may be expected to be of advantage.

It is now a little more than eighteen years[1] since Dr. Philip Karell read his paper on the "Milk Cure" before the Medical Society of St. Petersburgh.

To this paper I must refer for a large number of interesting historical facts, of both ancient and modern date, bearing on this subject, beginning with Hippocrates and coming down to the date of the paper itself. Among the diseases for which it had been recommended during this period, were phthisis, gouty affections, particularly articular, sciatica, leucorrhœa, hectic fever, dropsy, typhoid fever, intestinal obstruction, Bright's disease, intermittent fever, obesity.

Karell himself numbers the cases of successful treatment with milk "by hundreds." Dr. Inozemtseff, the author of a work on the "Milk Cure," published in Moscow in 1857, treated, with the help of his assistants, 1,000 cases. The former further says, "With regard to my own practice I have, after fruitlessly trying all sorts of remedies in many chronic and obstinate diseases, at last succeeded in bringing the elementary canal, that seat of so many diseases, under my control. I did this by administering milk according to a new method." He says also, "After a great deal of experience, I have arrived at the conclusion, that in all dropsies, in asthma, when the result of emphysema and pulmonary catarrh; in obstinate neuralgia, when its cause lies in the intestinal canal; in diseases of the liver (simple hypertrophy and fatty degeneration), and generally in diseases when there is faulty nutrition, often a consequence of obscure sub-acute inflammation of the stomach or intestines, followed by affections of the nervous centers—in all these cases I consider milk as the best and surest of remedies. Even in those cases where the dropsy is the result of organic heart disease, or of old standing liver complaint, or of far advanced Bright's disease, I have seen very marked improvement take place, which also lasted a considerable time."

I have thus freely quoted Karell, because I believe the date of his paper marks an era in the history of the milk cure. He was instrumental in directing the attention of many to this method of treatment, and among them Prof. Niemeyer, who writes to him in 1861; "I thank you sincerely for having recommended the milk cure to me. I often resort to it and can praise it highly. If one were to acknowledge the existence of a number of diseases, the cause of which is not to be sought for in the remediable affections of certain organs, but rather in a perverse nutrition of which we are unable to define either the extent or nature, we must then admit the curative virtues of milk, and regard as a true advance in science, the discovery that this aliment is an innocent, and at the same time efficacious remedy, for producing a complete change of nutrition."

Referring to the extraordinary success claimed by some, Karell says he has no faith in so large a num-

[1] On the Milk Cure, by Philip Karell, M.D., Physician to His Majesty, the Emperor of Russia. Translated from the author's manuscript, by G. L. Carrick, M.D., Physician to the British Embassy at St. Petersburgh. *Edinburgh Medical Journal*, Vol. xii, Pt. I, p. 96, Aug., 1866.

ber of fortunate cases. He does not attempt to decide whether the beneficial influence of milk in certain illnesses is due merely to its nutritive qualities or some occult medicinal virtue. He simply calls attention to the fact that milk and chyle resemble each other very closely, insists that it must be taken at regular intervals under the direction of an experienced person, in doses from two to six ounces of *skimmed* milk, and that the best results are only obtained when the diet is an exclusive one. He further characterizes it as a regulator of nutrition.

My own experience with the milk treatment includes the following classes of cases: diabetes, calculous disease, Bright's disease, dyspepsia, obesity, and certain instances of the so-called nervous prostration in women, in which its use formed a part of the treatment by rest, seclusion, massage, and electricity, and which has produced such satisfactory and widely known results in the hands of Dr. S. Weir Mitchell, of Philadelphia.

First, as to *diabetes mellitus*, it is now generally conceded that no measures are so efficient in removing the sugar from the urine, and relieving other symptoms, as the dietetic, and of the dietetic treatment none has been so promptly efficient in my hands as an exclusive milk diet. As to the degree in which relief is afforded, it must be admitted that a cure cannot always be guaranteed. The possibility of this depends upon the lesion at the bottom of the disease. But I add my testimony to that of Donkin and others to the effect that a certain number of cases are completely relieved, and that the symptoms do not return, after a cautious addition to the milk diet, and gradual substitution by nitrogenous, and, still later, even by starchy and saccharine foods. Other cases, again, show no sugar in the urine as long as the milk diet is continued, although this and other symptoms recur immediately that it is omitted and other food is substituted. In a third class of cases, sugar is much diminished, but does not disappear, and in such instances I have invariably found, in the most carefully conducted comparative experiments, that no other treatment is as efficient in diminishing the glycosuria. In a last, and smallest number of cases, the milk diet is really badly born, and it is impossible to carry it out; but in the large majority it is the most efficient remedy of which I know.

My method of exhibiting milk in diabetes, and indeed in all the conditions, to which I will refer as adapted to it, is to begin with half a tumbler-full, or four ounces of skimmed milk every two hours, for the first day, from which it is evident only thirty-two ounces, or a quart, can be given from 7 A. M. to 9 P. M. This is, of course, insufficient for an adult person, and even the second day I increase to six ounces every two hours, and after a day or two more to eight ounces, in which way sixty-four ounces, or two quarts are reached in the period named. This amount is quite sufficient for many persons of both sexes with small frames and light weight, but is quite insufficient for others, for whom the quantity may be increased by taking more at one time, or beginning a little earlier in the day and continuing later; or a glass or two may be taken during the night. Or, the interval may be increased to three hours, when still larger quantities must be taken at a time, until an amount sufficient to appease hunger or to maintain a good weight is reached. I have known twelve and a half pints to be taken per day by a large man whose average weight was 195 lbs., but it is very seldom that so much is needed, and its ingestion becomes very inconvenient. When, however, such quantities are necessary, a part may be taken in the shape of curd, as suggested by Donkin. Thus, the man just referred to, took the curd from four and a half to six pints, and drank the remainder of twelve and a half pints per day, he having found this much necessary in order to retain his weight while exercising actively during the day. While using eight to ten pints a day, part in milk and part in curd, he lost a half to three-fourths of a pound daily, although his health and strength continued perfect.

It is impossible to lay down a rule as to the quantity required in the twenty-four hours, but it may be roughly put at from five to ten pints for persons of medium stature, the larger quantity being necessary for those who are exercising, and the smaller for persons at rest.

The milk should be taken slowly, and not gulped in large amounts at a time. Not less than five minutes should be occupied in the drinking of a single glass of eight ounces. Nor should it be taken very cold. In summer the temperature should be about 60°, or a little below that of the surrounding atmosphere, and in winter it may be raised to the same temperature, or even slightly warmed, but it should not be boiled, unless diarrhœa is present.

Such a diet is of course quite compatible with health and strength for an indefinite time. And while I hardly advise that no attention be paid to the complaints of those who say that milk does not agree with them, I always insist on being allowed to settle that question myself by actual trial; and it is well known that where unskimmed milk is not well born, producing, as it sometimes does, discomfort from flatulence or other cause, the skim-milk may be taken without causing any such sensations. Should the latter still disagree, which is very rarely the case, the liberal addition of lime water in the beginning, say but an amount equal to one-fourth, or even one-half the milk used, will often correct the difficulty; and later the milk can be gradually resumed in full strength. Occasionally, too, persons will complain of feeling weak upon a milk diet. This complaint, which is also often unfounded, may be met by increasing the amount prescribed.

A complaint of greater importance is the constipating tendency of a milk regimen, particularly at first. But this may be corrected by the daily use, if necessary, of one of the saline aperients, of which sulphate of magnesium is one of the best, or one of the aperient mineral waters, as Hunjadi Janos, or Friedrichshalle, or some one of the Saratoga aperient waters; or if these are insufficient, a pill of compound extract of colocynth, podophyllin and extract of hyoscyamus may be used; or a cup of black coffee in the morning may be sufficient. In many cases this symptom disappears after a time, and the

whitish, almost odorless evacuations continue daily.

In diabetes mellitus, more than in any other conditions to which the milk treatment is applicable, it should be exclusive, at least at first. My plan is to continue the milk until sugar has been absent for from four to six weeks, after which I gradually add other foods, beginning with unskimmed milk, meats, oysters, fish, tomatoes, the green vegetables, gluten, bread, fruits. The urine is tested after each addition of food, and if glycosuria is found, the article of food responsible for it is omitted for a time longer.

If I am asked the rationale of the action of skim-milk in the treatment of diabetes, I am compelled to admit that I have no reason to believe it is directly curative. The most that can be said of it is that by furnishing a food which is nonirritating and easily assimilable, even as to its saccharine constituent lactose, we give a rest to the starch and sugar assimilating apparatus, and allow the reparative tendency of nature to assert itself, and the hepatic or intestinal condition which causes the glycosuria, to disappear.

This is no time to discuss the pathology of diabetes, but there can be no doubt but that a certain number of cases consist in a simple organic or functional derangement of organs which only require to be let alone in order to restore themselves to a normal state, while the irritation caused by foods which can only be assimilated through their offices, must result in more or less permanent lesions. There are few who have not realized in some degree the suffering incident to the use of an inflamed muscle which prompts us to place it in a state of rest. The liver can make no appeal of this kind against its abuse; and whether the condition as the result of which it cannot make the normal disposition of the glucose be primary to it, or secondary to a primary lesion elsewhere, the continued use of such foods can only aggravate both primary and secondary lesions.

Now, the skim-milk furnishes a food of a kind which gives the liver a thorough rest—and a more complete rest than any other diet as yet suggested. This, I am forced to admit, is the only way in which I conceive it acts in the cure of diabetes. Hence it is that there are certain cases due to lesions remote from the liver, which are themselves incurable, either spontaneously or through direct treatment, which milk cannot reach; such, I believe, are some forms of pancreatic disease. In these cases, the lives of the patients are prolonged by any diet which furnishes the requisite reparative and force-producing elements in an available shape. In such case, a starchy and saccharine food is wasted, simply because the resulting grape sugar passes directly through the system. Milk and the albuminous foods, not being converted to any extent into grape sugar, are still available as force producers, and thus defer the unfavorable termination, or, in a word, keep the diabetic from starving.

It may also reasonably be asked, why is skim-milk superior to unskimmed? I believe any superiority consists in the fact that milk deprived of its cream is simply more easily assimilable than unskimmed milk, and therefore less likely to disturb digestion. There are probably none here who have not heard the complaint from certain patients that a milk diet makes them bilious, by which is merely meant that it causes indigestion. And there are doubtless many who have found the substitution of skimmed milk to remove these symptoms. I have, too, quite frequently observed that whatever food produces indigestion in a diabetic is apt to cause an increase in the glycosuria, independent of its composition, and I have sometimes thought that the use of the curd I have alluded to causes a slight return of glycosuria from this cause.

On the other hand, as already stated, I am quite in the habit of gradually adding unskimmed milk to the skimmed in cases of diabetes, and where there occur no symptoms of indigestion, I have continued it before adding other articles of food. In like manner, peptonised skimmed milk in which the casein is partly digested, is even more easily assimilated than the non-peptonised.

A second class of cases, in which the skim-milk has been of signal usefulness in my experience, and in which its results are capable of a more rational explanation than in diabetes, are cases of *uric acid gravel.* I have yet to see an instance of persistent uric acid sediment, in which the exclusive use of milk was not followed, sooner or later, by a total disappearance of the deposit, while I have known its persistent use to be followed by the easy discharge of uric acid calculi of considerable size, *per urethram.*

The rationale of these results has been made perfectly plain by the chemical study of the urine of persons on such a diet, by Dr. John Marshall, of the University of Pennsylvania, undertaken at the suggestion of Dr. Mitchell, a year ago, and repeated recently for me. It is rather singular that although skim-milk has been used for so many years in diseases involving a study of the urine, examinations of this kind were not previously made. The most important result of these analyses, is the fact that in the total twenty-four hours' urine of persons on the skim-milk, *no appreciable amount of uric acid could be found.*

Here, too, as might have been expected, the same results obtained, whether the patient used a diet of skimmed or unskimmed milk. Dr. Marshall examined for me for three days in succession, the urine of Mr. M., who had been for several weeks upon a diet of unskimmed milk. The quantity of milk ingested during these three days, was on the first day six pints, or 2,838 c.c.; on the second day the same, and on the third day five pints, or 2,365 c.c. The quantity of urine passed, was on the first day 1,356 c.c.; on the second day 1,580 c.c., and on the third day 1,070 c.c. The total urea in the first was 31.59 grams, in the second 27.96, and in the third 19.68. *Uric acid was not present in recognizable quantities—i. e.* 500 c.c. of each sample evaporated to dryness and properly extracted, gave no reaction with the murexid test. Dr. Marshall says further: "Uric acid probably might be found if five or six liters of the urine in question were evaporated to dryness and tested, most likely, however, only a trace."

Here, then, we have a simple rational treatment

for uric acid gravel, and as successful as it is simple. There seems, too, to be no reason why the milk should be skimmed for this use, rather than unskimmed, while the latter has the advantage that a smaller amount is needed to satisfy hunger and keep up the weight of the body.

As to the propriety of an exclusive milk diet in these cases of uric acid gravel, it may be determined by experience. While it may not be necessary in every case, in some it is absolutely so. In the case of Mr. M., who had several severe attacks of nephritic colic, and who, under ordinary mixed diet, as constantly passes a large daily amount of uric acid, as he is constantly in discomfort, the addition of bread only, to a meal, causes a return of uric acid, while a pure milk diet is unattended by such discharge.

While an exclusive milk diet is so efficient in cases of pure uric acid gravel, it is not to be especially recommended in *phosphatic calculus*. Indeed, it is rather contra-indicated. For the effect of a milk diet is to alkalise the urine, and therefore to tend to maintain a phosphatic sediment.

While nothing can be hoped for in respect to solvent action, or tendency to solvent action upon *oxalate of lime* sediments, by urine derived from a milk diet, yet, as it is commonly supposed that the same conditions of system which tend to produce uric acid are those which produce oxalate of lime, it may be expected that milk treatment will also be useful in the oxalate of lime tendency.

The third set of diseases in which I have found the milk treatment especially useful, are certain forms of *Bright's disease*. In these, more discrimination has to be exercised than in any of the foregoing. In general, it may be said that it is in the contracted kidney of interstitial nephritis that milk is most useful, the headache, nausea, vertigo, and "fulness" in the head, and the palpitations which are so often very annoying symptoms, are frequently relieved by it. Here, too, the skimmed milk is especially indicated, because anything which increases the labor of digestion aggravates the symptoms above mentioned as characteristic. It would seem, too, that those suffering with contracted kidney are better when the blood is not too good in quality or too rich in solids. On the other hand, it is not so necessary that the diet should be exclusively milk, and a sufficient quantity of bread and vegetables may be permitted to break up the monotony, while meat, eggs, and all foods rich in albumen should, as a rule, be prohibited. In this disease, especially, the constipation incident to a milk diet should be guarded against.

In parenchymatous nephritis and amyloid kidney I have found milk less useful, while it is still a very convenient and suitable diet, often producing diuresis and relieving dropsies. When a diuretic effect is desired, buttermilk is to be preferred, while it is as easily assimilated as skim-milk, and often more palatable.

That a milk diet should be useful in certain cases of *gastro-intestinal disease*, is generally recognized. There are two classes of cases for which it is adapted. The first is that represented by the ordinary dyspeptic, whose symptoms are sometimes dispelled as by magic by a pure skim-milk diet systematically carried out, and modified by the free addition of lime water. In a few instances of ordinary dyspepsia I have found the use of milk to produce flatulence, and to be altogether illy born, but this tendency is corrected by peptonising the milk.

At the same time, I cannot too strongly recommend in all cases of simple dyspepsia where other measures have failed, a trial of the milk treatment in the systematic manner described, and modified as the peculiarities of the special case may demand, and especially in the event of failure with simple skim milk that the peptonised milk be tried.

But it is more particularly in the treatment of organic diseases of the gastro-intestinal tract that the bland and unirritating qualities of milk diet are indicated. In gastric ulcer the use of no other food than peptonised milk should be permitted. In chronic enteric disease of both small and large intestines, and particularly of the latter, it is very doubtful whether it is in our power, by therapeutic means, to directly affect the diseased parts. Our treatment must therefore consist in such measures as will favor nature's inherent tendencies to restore lost tissue. This can only be done by placing the patient on a diet which is nonirritating, leaves little waste, and at the same time makes the smallest demand upon the digestive function. To accomplish this, it is necessary to obtain his consent to the use of a diet of peptonised milk for an indefinite period. For no promises can be made as to the date at which other food dare be permitted. The uninterrupted presence of natural stools, and the continued absence of pain, are the only reliable criteria. To be able to carry out such a treatment satisfactorily, it is absolutely essential to secure the confidence of the patient. The process of obtaining this depends largely upon the personal qualities of the physician, and the ability to be able to speak authoritatively, but when the probability of almost certain recovery is held out, and it is shown that the good effect of weeks of treatment are undone by so simple a solid as a small piece of bread, the battle is half won. Particularly in those cases of irritation of the large bowel, attended by the discharge of mucus or mucus-casts, may we expect from the milk treatment the most satisfactory results, while success by local treatment is very rarely attained. The use of milk is rational, and consistent with what we know of the essential conditions of growth and repair.

I will allude to but one more use of the milk treatment, referring to Dr. Mitchell's little book on "Fat and Blood" for a better exposition than I can give of its use in the class of cases in the treatment of which he has earned so much reputation. The purpose to which I will refer is that for the removal of excessive *obesity*, and for this a skimmed milk is necessary. No treatment which has ever been suggested, is half so efficient. I have seen a lady disposed to obesity, who, in consequence of a more than usually quiet summer, and the liberal use of food, return to the city so much increased in flesh that she could not put on the clothing which a few months before was worn with ease, and suffering with a shortness of

breath which made walking any distance almost impossible, resume in the course of two weeks' use of skim-milk, to her usual weight and state of comfort. In these cases a pint of milk may be taken every four hours, or fifty-six ounces in the day, with directions to take more if hunger is not appeased. It is scarcely likely that even with this freedom too much can be taken to prevent the desired reduction in weight. It will be remembered that I referred to the case of a large man who was able to retain his weight upon twelve and a half pints a day, but when consuming ten pints daily, lost half a pound each day.

It may not be proper in all instances to reduce the weight so rapidly as can be done upon a skim-milk diet, especially when the subject is active or hard working, but it is to be remembered that obese persons are not usually of this kind, and that activity is facilitated by some loss of flesh. It is to be remembered, too, that the fat they carry is simply stored up in the subcutaneous tissue, because it is more than enough to supply the force-demands of the human machine, and has really had no use until the requisite daily amount of oxidizable material is not supplied in the daily food. Hence it is that when the weight is reduced approximately to a certain standard ratio to height, unskimmed milk or other articles of food should be judiciously added to furnish sufficient oxidizable material. But it is an interesting and important fact that when a certain stage of reduction is attained, further falling off, even with a moderate amount of milk, ceases, or takes place so slowly that it is easily made up by additions to the diet, to which of course there is no objection at this stage in the condition under discussion.

MEDICAL PROGRESS.

SURGERY.

THE TREATMENT OF GONORRHŒA BY OPEN WIRE BOUGIES.—D. C. M'Vail, M.B., in the *British Med. Journal*, gives a wood-cut showing three pieces of wire soldered together at one end with a flaring extremity at the other, of the size and shape of an urethral sound. The instrument is intended to keep separate the inflamed mucous membrane of the urethra during gonorrhœa, and also to allow the discharge to drain freely away, and not lie in the passage and give rise to renewed secretion. Another form has, instead of the flanged extremity, a short length of catheter-tube attached, and to that a short piece of rubber tube. The solution to be injected is introduced by a syringe, and when quite full, the India rubber tube is compressed by a spring clip, to prevent the escape of the fluid. Within from twenty to thirty minutes, the injection will be almost wholly absorbed by the urethral walls, and then the clip may be detached. These instruments are well borne in the urethra and the patient can pursue his ordinary avocations while wearing them.

PROF. LORETA'S NINTH OPERATION FOR FORCIBLE DILATATION OF THE ORIFICES OF THE STOMACH: RECOVERY.—On the 15th of March Professor Loreta forcibly dilated the cardiac orifice in the Surgical Clinique of Bologna. The patient, E. L., a young woman aged twenty, had for four years manifested all the symptoms, rational and direct, of ulcer of the stomach. For the last twelve months constriction had steadily increased; at first solids, and then liquids, entered the stomach with difficulty, so much so that only a few drops of broth could be swallowed at a time. Regurgitation of substances swallowed became the rule. The body wasted rapidly, and life could only be maintained with nutritive enemata. Having diagnosticated stenosis of the cardiac orifice, Professor Loreta proceeded to dilate it. He opened the abdomen in the linea alba, and found the stomach thick, small, and contracted. He incised it freely, and passed an elastic sound through the cardiac orifice to make way for his dilating instrument. This soon overcame the obstacle, in spite of efforts to vomit, and the œsophagus was found much dilated. The apertures in the stomach and in the abdominal wall were sutured separately. The operation was performed under chloroform in thirty minutes; and the patient, so soon as she had recovered from the narcosis, to the great surprise of the onlookers, swallowed three spoonfuls of water with perfect ease. Professor Loreta in a note to the *Lancet* states that the patient has entirely recovered.

RUPTURE OF THE URINARY BLADDER.—Dr. B. Beck, General and Corpsarzt of the 14th Army Corps of the German Army, has observed twenty-five cases of traumatic rupture of the bladder, and in the *Deutsche Zeit. f. Chirurgie*, he reports two cases at length, and adds the following conclusions (*Medical Press*):—

1. That simple rupture of the bladder may be caused by direct or indirect violence — falls on the feet or the lower end of the trunk — and that the momentary position and attitude of the body contributes in determining the situation, form, and extent of such rupture. The bladder will always give way at its weakest part, the anterior or posterior wall, the point being determined by the direction in which the contents of the bladder are pressed by the outside force.

2. The only characteristic symptons are those furnished by the wounded bladder itself, and these are: violent, frequently-returning attempts to urinate; inability to pass water spontaneously; flow of small quantity of bloody urine on passing the catheter; strong contraction of the bladder, whereby its capacity is diminished; free movability of the catheter, after which the small emptied space speedily fills up with some urine, which sets up renewed straining. If bloody urine escapes, the diagnosis may be made of extra peritoneal rupture, as it is only rupture of the anterior wall in the vicinity of blood-vessels that give rise to hæmorrhages. Oedema of the external genitals, caused by disturbance of circulation, supports the diagnosis of extra-peritoneal rupture.

3. The fatal termination in cases of simple rupture of the bladder is not a consequence of peritonitis, but of intoxication by resorption of decomposed urine.

4. Internal medicines are insufficient. The first requirement is the introduction of a permanent catheter, under strict antiseptic precautions.

As the urine that is poured out into the abdominal cavity is the greatest source of danger to the organism, the treatment in intra-peritoneal rupture should not be expectant. At the onset, or increase of local symptoms, if the general condition be gravely affected —and this will be seen in the course of a few hours— the following is the only mode of procedure calculated to save life: Laparations, removal of the urine poured into the abdominal cavity, thorough disinfection, and, finally, closure of the bladder-wound by suture. In extra-peritoneal rupture, when the urine has permeated the extra-peritoneal connective tissue, an expectant plan of the treatment is allowable so long as changes at the centre of infiltration do not point to the necessity for surgical interference. The main point in the treatment is the employment of a retaining catheter, with occasional cautious washing out of the bladder with some antiseptic fluid in order that no fluids capable of becoming disorganized may be allowed to remain, to the jeopardy of the patient.

MATERIA MEDICA AND THERAPEUTICS.

The Theory of the Mode of Action of Sulphur. —Unna (*Monatshefte für Praktische Dermatologie; Edin. Med. Jour.*) divides into two classes skin diseases benefited by sulphur. In the first — as acne, pityriasis capitis, and icthyosis, sulphur should be used in strong doses and persevered in. In the second — as eczema, sulphur should be used much weaker and only temporarily. If sulphur be applied to the sound skin, it soon produces an unnatural dryness, and finally, a weeping surface. In moist eczema, for a couple of days it dries and lessens inflammation. If injudiciously persevered in, it causes slight fresh outbursts of eczema. To account for this, Unna considers that sulphur in contact with the skin may originate various compounds, which may act differently on different tissues, and change in its action may be occasioned by its being brought in contact during its employment successively with deeper layers of tissue. The ordinary action of sulphur is comparable to that of very weak sulphuretted hydrogen. To study this, Unna prepared keratine by a complicated chemical process from fine horn shavings. This was soluble without difficulty in solution of sulphuretted hydrogen, and as the keratine dissolved the sulphurous odor disappeared. So that it is likely that a soluble keratinate of sulphur was produced. It is known that the process of cornification consists in great measure in a drying up, and it was found that the keratine of the young epidermic cells was more soluble in sulphuretted hydrogen than the older horny layer. The keratolytic property which sulphuretted hydrogen has been proved to possess is not so marked as that of dilute caustic alkalies, but is more noticeable, because sulphuretted hydrogen is more approximated to the acids, and keratine is in general (acetic acid being an exception) not soluble in acids. It is plain, however, that this keratolytic property of sulphur only explains the irritant action — that which causes eczema and artificial pityriasis. But it cannot account for the primary effect of sulphur when, employed in very minute doses, it "dries," cures eczema, and renders the epidermis smooth. This Unna explains by a keratoplastic action which sulphur exercises. It acts as a deoxidizing agent. In becoming horny the epidermis undergoes a reduction of its organic combinations, and a diminution of its vitality. Thus, in treating eczema with sulphur, its employment must be discontinued as soon as the desired effect, the drying up of the weeping surface, has been reached.

The Italian Medical Revival.—No one who watches with any degree of care the progress made in his profession can but admit that in the last few years Italian clinicians and medical writers have been coming to the front in a marked degree; and the *Lancet* calls attention to this in an article with the above heading, which reviews the medical men of Italy and their works in a brief but very satisfactory manner. Turin has now a thriving university under such leaders as Bizzozen and Novaro. Milan is now a great publishing centre. At Bologna Lireta has sustained, with some of the boldest achievements of modern surgery, the fame bequeathed by Rizzoli. Rome has become a center of greater intellectual activity than at any former period in the history of modern Italy, while Naples, with its 1,200 students and its staff of distinguished teachers, is, for numbers and activity, in the very front rank of contemporary medical schools. There are fifty-four Italian medical periodicals. If monographs and treatises are not relatively so numerous as the periodicals, it is nevertheless a fact, that in all departments of medicine and surgery, the Italians are every year giving proof of increased activity, to wit, the writings of d'Antonia, Bottini, and Mazzoni, of De Rossi, Massei, Maturi, and Bufalini.

Rectal Feeding and Medication. —Dr. Wm. Julius Mickle gives some very useful hints in a paper on this subject published in *The Journal of Mental Science*. In using nutrient enemata he advises that:

Alcohol should not be added to albuminous food.

If necessary, the bowels should previously be cleared out by a simple or aperient clyster, and a daily copious cleansing clyster is required in some instances. The bowels may have to be rested, but we must persevere if the first attempt fails. Where it is apt to return, the patient's best position to receive the enema is on the back or left side. The nozzle or tube should be comfortably warm, so should the food injected. The amount injected may sometimes with advantage be small at first, gradually increasing from 2 to 10 ozs. If the foods are ejected, we may try the plan (Dr. Hine's) of depositing them higher up in the viscus by means of elastic tubing and a funnel. But plugging the anus is often necessary, and has been done in many cases.

Conflicting as are the results of experiments on the subject, he concludes that the rectum and colon digest but little, and that, even when inverse peristole is set up, the action of the bowel upon enemata is chiefly absorptive. If so, the food should either be

introduced mixed with digestive substances, or else before administration should in some way or in some measure be digested, and ready for absorption into the venules and lymphatics of the intestinal walls.

The following methods are all considered good:

Leube. Three parts of meat to 1 part of pancreas, both finely minced and mixed with a sufficient quantity of warm water for clysis. Carefully remove all fat and connective tissue. The hog's pancreas is the favorite.

Rennie. To a basin of good beef-tea, add ½ lb. shredded lean raw beef; ʒj fresh peps. porci; ʒij dil. hydrochloric acid; warm for four hours, stir frequently. Beaten egg or alcohol (?) may be added.

Catillon. A saturated solution at 19° C. of peptone of meat, 40 grammes; water, 125 grammes; laudanum, 3 to 4 drops; bicarb. of soda, 3 centigrammes.

Dobell. Cooked, finely grated beef or mutton, 1 lb.; pancreatic emulsion (Lawry and Moore), 1 oz.; pancreatic powder, 20 grs.; pepsine (pig's), 20 grs. Mix quickly, add half an ounce of brandy, and warm water sufficient to bring it to the consistence of treacle.

Henninger. Very lean meat, finely minced, is placed in a glass receiver; water and H. Cl. are poured on, and pepsine, at the maximum of its activity, is added. The whole is left in a water-bath or stove to digest for 24 hours at 113° F.; it is then decanted into a porcelain capsule, brought to the boiling point, and whilst the liquid boils a sol. of sod. carb. is added to it, until it shows a very slight alkaline reaction. Then the boiling liquid is passed through a fine linen cloth. The liquid is reduced in bulk in a water-bath. White sugar is added before administration.

Mickle. A pint of milk, with one-fifth or one-fourth of a pint of water, is carefully heated to 140° F. Two drachms of liquor pancreaticus (Benger's), and 20 grains of bicarbonate in solution in one or two ounces of water, are added. The whole, in a covered vessel, is kept near the fire at 140° F. for an hour or an hour and a half, then thoroughly boiled for two or three minutes. Thus prepared the food keeps for half a day or a dav.

In rectal medication Dr. Mickle has made extensive use of enemata of chloral hydrate in many cases of epilepsy and of epileptiform seizures. He gives thirty grains dissolved in two ounces of water, and has found it very useful.

OBSTETRICS AND GYNÆCOLOGY.

THE CASTRATION OF WOMEN.—Dr. Wilhelm Tauffer, of Buda-Pesth, gives in the *Zeitschrift für Geburtshülfe und Gynäkologie*, an account of twelve cases of this operation performed by himself, and then presents the following conclusions: (*Medical Times*).

1. Castration is an operation, which with proper care is not attended with any great risk; the unavoidable mortality being now less than 10 per cent. 2. The operation should be performed with antiseptic precautions and under carbolic spray; the abdominal cavity should be closed; drainage is only exceptionally required. 3. The limitation, that castration is not called for when the climacteric is near, can only be conditionally accepted, because the age at which the climacteric occurs is very different in different individuals, and cannot be foretold. 4. The condition laid down by Hezar, that the ovaries should be distinctly felt before their extirpation is attempted, is an impracticable one. 5. Both ovaries should be removed, even if the disease be limited to one; excepting in cases where special circumstances make it desirable to leave behind the apparently healthy ovary. The reason for removing both ovaries is, that the remaining gland has a tendency to become diseased in the same way as its fellow. 6. It is generally desirable to remove the tubes as well as the ovaries; and it is unconditionally necessary if there be the slightest appearance of disease in them. 7. Hystero-epilepsy is curable by castration. 8. The symptoms grouped together under the name of hysteria, when rightly analyzed, can often be traced back to ovarian disease. 9. The question as to the influence upon uterine fibroids of the ligature of large nutrient-vessels going to them, without castration, is worth consideration. 10. With regard to prognosis, it is important to remember that the menopause only follows immediately upon the operation in those cases in which the neighboring organs are not diseased; but all inflammatory conditions of them delay the climacteric. 11. The final result of castration can only be determined after the lapse of months. 12. It must be regarded as an open question, how far diseases of the female sexual organs influence the development of certain psychoses. 13. So must the question whether such psychoses are curable by castration. 14. In the interest of unity and comparison of observations, it is desirable that the classification of cases (suitable for this operation) adopted by Hezar should be generally accepted.

NERVOUS DIARRHŒA.—Dr. Silverio Dominguez (*Anales del Circulo Medico Argentino Buenos-Ayres*) says on this subject: The violent emotions may be the cause of diarrhœa, and the female sex is peculiarly disposed to them. This nervous diarrhœa is probably produced by a paralytic dilatation of the intestinal canals from a reflex cause, in consequence the pains are but slight, and the dejections most frequently are aqueous, without being associated with any catarrhal or inflammatory process. The treatment should be directed to the nervous system; assafœtida in four gramme doses as an enema, may be given every two hours to advantage; while as an adjuvant an anti-spasmodic mixture of tilia and valerian may be used.

RESIGNATION.—Dr. C. C. Fite, Secretary of the State Board of Health of Tennessee, resigned that office on the 29th of May, 1884. Dr. Fite has been a faithful and efficient officer, and his retirement is much regretted, not only by members of the Board, but by all interested in the sanitary affairs of that State. His successor is not yet elected.

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THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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COLLECTIVE INVESTIGATION OF DISEASE.—As stated in the minutes of the recent meeting of the American Medical Association, published in the JOURNAL of May 24, page 572, the invitation extended by the General Collective Investigation of Disease Committee of the British Medical Association, to coöperate by establishing similar work in this country, was accepted, and the President was requested to appoint a committee of seven members of the Association to take charge of the subject. The President did not announce the names of the committee at the time, and consequently they do not appear in the published minutes. He has since, however, authorized the appointment of the following members to constitute the general committee:

N. S. Davis, Chicago, Ill.; H. O. Marcy, Boston, Mass.; James Tyson, Philadelphia, Pa.; H. B. Baker, Lansing, Mich.; F. D. Cunningham, Richmond, Va.; S. E. Chaillé, New Orleans, La.; and Thos. F. Wood, Wilmington, N. C.

This committee was authorized by the Association to enter into correspondence and coöperation with the General Committee of the British Medical Association; to appoint, either directly or through the agency of the State Medical Societies, subordinate committees in the several States; and to adopt such measures as would best secure the efficient execution of a plan for the Collective Investigation of Disease in this country, so nearly parallel with that established in Great Britain, that the results in the two countries would be capable of mutual interchange and comparison. The State Medical Societies of Pennsylvania and Illinois, and perhaps some of the other States, have already appointed committees on the same subject for organizing the work in their respective States. It is desirable that all such committees appointed by State or local societies, put themselves in correspondence immediately with the above general committee, for the purpose of securing concert of action, economy in both labor and expenditure, and the greatest degree of efficiency in the practical execution of the work.

LEGAL DECISIONS AND THE ILLINOIS STATE BOARD OF HEALTH.—In another part of this number of the JOURNAL will be found a brief notice of two cases recently adjudicated in this State, one arising under a law creating a State Board of Examiners for licensing parties to practice dentistry, similar to the law regulating the practice of medicine, and the other under the last named law. In the first, the direct question brought before the court, was, whether the State Board had the right to go beyond the fact that a dental college was a legally chartered institution, and define what should be the extent of its curriculum or requirements for graduation, and exact compliance with its definition, before granting licenses to the graduates of such college? The decision of the court sustained the authority of the Board. On the same principles it would sustain fully the State Board of Health in enforcing its authority to define what should constitute a medical college on whose diploma a license to practice medicine should be given. In the second case the question presented to the court was, whether under the law regulating the practice of medicine in Illinois, the State Board of Health had the right to refuse a license to a party presenting a diploma from a medical College acknowledged to be in good standing, on the ground of unprofessional conduct on the part of the applicant himself? This was also decided in the affirmative by the court. These decisions are important, not only because they will add to the influence which such State Boards are capable of exerting over the medical colleges, but equally so in showing a disposition on the part of the courts to protect the people from the impositions of men guilty of unprofessional conduct and false pretenses before the public.

NEW JERSEY STATE MEDICAL SOCIETY.—This, the oldest State Medical Society in this country, will hold its one hundred and eighteenth annual meeting, in the Stockton House, Cape May, on Tuesday and Wednesday, June 10 and 11, 1884. President,

Stephen Wickes, A.M., M.D.; Secretary, Wm. Pierson, M.D., Orange, New Jersey.

DIPHTHERIA AND MICROCOCCI.—According to the remarks of Dr. H. C. Wood, in the recent meeting of the Pennsylvania State Medical Society, there is in the ordinary natural saliva of every person's mouth, a micrococcus or plant that cannot be distinguished from the micrococcus of the most malignant diphtheria; they were, as far as could be discovered, identical. The same micrococci were found in great abundance in cases of puerperal metritis, sloughing sores, and gangrenous wounds; from which he infers that diphtheria is not a specific disease, but simply a putrid or septic sore throat, of greater or less severity in different cases. This is returning very nearly to the opinions derived from clinical observation fifty years since.

DIFFICULT PROBLEM. — The Pennsylvania State Medical Society recently adopted the following resolution, offered by Dr. Jackson, of West Chester: "*Resolved*, That a committee of seven be appointed to consider the best method of making a diploma, which permits a man to practice medicine in Pennsylvania, an evidence of real worth." We fear that it may take seven very wise men a long time to discover a practicable method for accomplishing the object proposed.

TEXAS STATE MEDICAL ASSOCIATION. — At the annual meeting of this rapidly developing State organization held at Bolton, April 22 to 25 inclusive, a large number of interesting papers were presented in the Sections, among which was one on the Mineral Waters of that State, by Dr. J. M. Wells, containing much valuable information. The Association voted $100 to the Sims monument fund. The next meeting is to be held in Houston, commencing the fourth Tuesday in April, 1885. Dr. W. J. Burt, of Austin, Texas, is Secretary.

SOCIETY PROCEEDINGS.

GYNÆCOLOGICAL SOCIETY OF BOSTON.

Stated meeting second Thursday of October, 1883, President Wm. G. Wheeler, M.D., in the chair.

Dr. M. D. Church read a paper upon "Post-uterine Abscess," of which the following is a digest:

A brief history of the medical recognition of the disease was first given, it being but recently that this variety of abscess was distinguished from a less limited inflammation of surrounding parts.

Doherty, in 1843, in a paper entitled, "Chronic Inflammation of the Appendages of the Uterus," made the first comprehensive attempt to elucidate the pathology of pelvic inflammation. A brief review of the anatomical features of the lower pelvic region was given, attention being especially called to the large quantity of loose tissue surrounding the uterus, into which exudative products may pass, liable at any time to ripen into pus, such tissues as support the vagina and cervix uteri laterally, from the base of the broad ligaments, Virchow declaring to afford one of the most frequent seats of disease.

Pelvic cellulitis, it should be remembered, may occur both in the puerperal and in the non-puerperal subject. This is not necessarily synonymous with pelvic abscess, pus formation being only one of the results of cellulitis. We may still have the further conditions, viz.: (1) Congestion and effusion of serum, and (2) exudation of coagulable lymph. According to Priestley, in patients enfeebled and of impoverished blood, the inflammation generally results in serous effusion only, but this may be very extensive. Such *e. g.* was a case of Simpson's, who confidently diagnosticated abscess, but the exploring needle gave issue to lymph only. Such effusion may become so extensive and cause such distension as to simulate a solid growth. In a case attended by the reader, the exudation in Douglass' pouch assumed a rounded form, and it was difficult to decide between serum and pus. A study of the anatomy of the parts has been proposed as a means of determination of what course exudative material may follow, but without satisfactory results. If the phlegmonous inflammation is of moderate limits, however, the resulting tumor will pretty surely develop between the cervix uteri and the rectum in the direction of the broad ligament. Other possible locations were also declared.

There may be more than one focus of pus-formation with different issues correspondent. The evacuation may occur through the bladder, rectum, external surface of the abdomen, and rarely by the uterus. The most common place for an abscess to point is much disputed by authorities, but all agree that evacuation within the peritoneal cavity is very rare.

As respects treatment, more reliance is placed by modern therapeutists upon the dietetic management of the case than in the specific action of drugs. Keep patient well nourished, ensure sleep, relieve pain. As respects surgical interference, opinion is divided. Nature will generally secure final evacuation and in a manner favorable to the patient. Such casualty, *e. g.*, as an opening into the peritoneal sac, as already said, being very rare. If an artificial opening is to be made, the median line behind the cervix, unless the tumor point toward the rectum, is the point of election. The opening must be sufficiently large and a drainage-tube be inserted.

The following summarized statement closed the paper:

1st. Parametritis and perimetritis are rarely idiopathic or primary.

2nd cause. Either mechanical injury, uterine, tubal or ovarian disease of an inflammatory character, possibly tuberculous or malignant.

3rd. Cold, suppression of milk, etc., appear to have no etiological connection.

The question was proposed, At what time is a woman comparatively secure from attacks of parametritis and perimetritis? Also, How long after parturition, gonorrhœa, or local surgical operation, may she continue in danger?

Dr. A. P. Clarke followed with a series of reports of cases bearing upon the same subject, of which an abstract follows:

1ST CASE.—Mrs. —— had been married five years; had never had a living child. Upon summons, found her sitting up, complaining of pain in bladder and left groin; had had chills, which were referred to a coincident sore throat. Pain steadily increased in extent and severity. Repeated vaginal examinations failed to discover any marked and localized point of tenderness. Later the pain became more severe, with an occasional chill, which was invariably followed by profuse sweating. Diagnosis, pelvic cellulitis, with probable formation of abscess. No fluctuation nor marked swelling present, but at times there could be elicited greater tenderness behind the uterus than in any other part. Patient stated she had had a similar experience one and a half years before, but had recovered, and, in the opinion of her physician, had not had an abscess, but some kind of a nervous attack.

Later, on vaginal examination, a small quantity of pus was discovered, but its source could not be determined. She now became easier, and was able to be about the house. Again she was suddenly taken worse. There were several repetitions of this experience, and indeed, she had two subsequent attacks, in which a very little pus was seen, aside from what escaped with vaginal discharges. Still, the general character of the attacks, the chills, sweatings, etc., seemed to indicate suppuration, and such was the diagnosis.

The following year she was seized with all her old symptoms, but having in the meantime moved from the place of her former residence, she was obliged to call in another physician—an eminent surgeon connected with the City Hospital, Boston. In his hands the case remained for a short time until Dr. C. was called in to take charge. The surgeon, in the meantime, had wholly discredited the diagnosis, which had been made on occasion of former seizures, and did not believe she had ever had abscess. He had not used a speculum as an aid to diagnosis, nor, indeed, instituted any thorough local investigation. The next day, with the help of a Sims' larger speculum, and the assistance of a view in a good light, Dr. C. was so fortunate as to detect a point where there seemed to be fluctuation, and by means of a small trocar and bistoury, was enabled to let out a large amount of fœtid pus, to the speedy and great relief of the patient. She had since removed beyond observation, and is understood to have had since then, still another attack, of which, however, no definite knowledge has been obtained. The original cause was, doubtless, a hæmatocele or some accident to the perimetric cellular tissue upon occasion of abortion. (Dr. C. followed with several similar reports, of which, however, a digest cannot be given for lack of space).

The chair remarked, as introductory to the discussion, that Dr. Clarke had been unusually fortunate in his series of cases—certainly as judged by his own experience.

Dr. M. L. Brown referred to a class of cases not considered by Dr. Church, where we have what may be called a peri-uterine abscess. In such occasional cases, doubtless, where death had followed, the patient might have been spared had the diagnosis been made earlier and the pus evacuated. Such cases too often break into the peritoneal sac and cause death, whereas the abscess, which Dr. Church had described, is more apt to make for the surface, burrowing under the sheath of muscles.

Dr. A. P. Weeks recalled a case, previously reported in part, where a Boston physician had attempted to replace a retroverted uterus, allowing the patient immediately after to return to her home in Chelsea. A week afterwards, Dr. W. detected fluctuation, and with Dr. Warner's assistance, had aspirated. The woman had never fully recovered, was not well to-day; the uterus was low down in the pelvis and fixed, and the tissues about it hard, contracted and unyielding. Saw another case while in the country; it had run on since Christmas and continued till the following May. The accompanying swelling had been diagnosticated as pregnancy by successive physicians, and had been called a tumor. There was a mass rising up to the crest of the ilium and filling the cavity as high as the umbilicus on the right side; was very tender. A spiritualist was called in who made certain motions and required certain movements on the part of the patient, when the tumor suddenly burst, was discharged by the rectum and the patient got well.

In such cases it is important to make an early diagnosis and evacuate as soon as possible. Once that the pus gets loose, it burrows and runs everywhere. Recollect a case of Dr. Wheeler's where the pus, after such history, presented at many points and continued to discharge for two years. Dr. Mundé, in a recent paper, had distinguished perilymphangitis from cervicitis; in the former condition applications of iodine do harm. As to treatment, Dr. Weeks had used mercuric chloride, hot injections, iodine locally applied, and insisted upon rest.

Dr. Wheeler emphasized the difficulty of getting to the bottom of the sac; the distribution of the deep fascias causes the pus to appear at the most unlooked for points. We make an opening at a point so remote from the primary abscess that we have a long, fistulous passage, and cannot know what the most pending point is. In Dr. Weeks' case, he opened in five places, but could never detect a point of fluctuation or bagging internally. Patient suffered for three years from these fistulous openings before final closure and recovery. Now all this could have been avoided if diagnosis could have been made, and proper measures taken, early.

Dr. Stoddard applied the same criticism to the case first reported.

Dr. Clarke rejoined: One patient had been told by a prominent physician that there was no pus there, and it was very difficult to prove that there was. So with another patient—a prominent surgeon had declared that there was no abscess; and yet she had chills and other symptoms of suppuration; but he was fortunately able to demonstrate the fact of the presence of pus by means of a speculum in a good light.

Dr. Church responded that at least three authors unite in reporting cases in which there having been constitutional evidence, but no local signs of pus, it was believed there may have been an opening into the bowel so high up that pus mingled with the fæcal matters and thus escaped detection when discharged with the excrement.

Dr. W. S. Brown thought Mathews Duncan, in writing upon the present subject, sometimes made too nice distinctions. The relation of gonorrhœa to the disease under discussion was of interest. Had at present a case under observation, where both husband and wife acknowledged such origin; and he had his suspicions in another case. Inflammation, thence resulting, may present the tissues so agglutinated together that we can hardly tell one from another. Veins and lymphatics are also affected, and patient suffers from pains passing down the legs. As respects the question of gonorrhœal implication, the woman does not know and the man will not tell,—this is too often the case, at least,—and we are left to our own unaided investigations. As to treatment, one thing is essential,—early evacuation, washing out the cavity and drainage. Prompt diagnosis is of the utmost importance. Here is an argument in favor of making vaginal examinations. There is an unfortunate prejudice with many physicians in this direction, but such examination should be insisted upon whenever we have cause to suspect inflammation.

Dr. Church proposed the question: Called to a case of a week's standing, with history of pain, a soft spot is found, but even by bimanual examination, no evidence of fluctuation is afforded:—should an incision be made at a venture, or should the physician still wait?

Dr. Wheeler replied, If there are well-marked constitutional symptoms, with hardness indicating pressure of pus, it is no longer necessary to wait for fluctuation now that we have the aspirator. It is the surgical part in these cases that is apt to fail of due attention; there is too general a fear that by interference we shall do the patient harm; we rather do harm by waiting, as the pus will burrow, and, not having contact with the air, occasion but little trouble to the patient until it finds its opening; then the mischief is done, as in Dr. Clarke's case.

Dr. Weeks estimated that a week's time was short for pus to be formed in such a case; moreover, we should not expect pus until after the chills and sweating. Then we hardly get fluctuation in this location so much as the so-called bagging.

Dr. W. S. Brown had observed that some hesitate on account of hæmorrhage, which it is especially hard to avoid and control. A good method is to make a very small opening, and then dilate as with Hanks' dilators, and tear the parts. Thus we get a better, safer opening, and one not so liable to close.

Dr. Norris referred to a class of subjects who have what may be called *pyrotechnic* pelves—inflammatory subjects, who are always ready to take fire, and on small provocation. Such are pretty sure to have trouble, and make trouble, after any surgical operation. Had a case in mind to whom mischief came after every confinement, four in succession. She would have an inflammatory seizure even after the passage of a sound, when in a non-puerperal state. Should expect such subjects to cause especial trouble in the complication under question.

And they are not to be recognized, rejoined Dr. Field, by any sign or condition they carry about them. The fact that such subjects are very sure to afford a certain ratio out of all patients treated, should serve as a constant warning against gynæcological interference—even to the passage of Simpson's sound—at the office of the physician, the woman being expected to go home afterward. The uterine patient should always be treated upon her own bed, where she can be kept absolutely still from the moment that the examination is completed or the application made, for an hour or a day or two afterward, as the case may be.

Society adjourned.

HENRY M. FIELD, M.D., Secretary.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

SECTION FOR CLINICAL MEDICINE, PATHOLOGY, AND HYGIENE.

ALBERT N. BLODGETT, M.D., SECRETARY.

MARCH 12, 1884.

Meeting called to order at 8 o'clock. Dr. Edes being absent, on motion of Dr. J. W. Farlow, Dr. E. T. Eastman was elected chairman *pro tem.* A summary of the records of the last meeting was given by the Secretary, which was approved.

The first paper of the evening was by Dr. G. Liebmann, entitled

SPINAL IRRITATION AND NEURASTHENIA.

Dr. S. G. Webber in opening the discussion said that the difference between neurasthenia and spinal irritation is not so definite as the author states in the paper to which we have listened. The two diseases depend upon similar conditions. The distinctions made in the paper are purely arbitrary. The two affections run into each other. That state or condition which the author calls "false spinal irritation" depending on irritation of the pelvic organs cannot be too constantly kept in mind. We do not always realize how much disturbance may arise from this cause, not only in women but also in men. Dr. Webber is far from satisfied with the usual explanations of spinal irritation, and does not believe that

anæmia or hyperæmia of the cord is a necessary or universal condition. In many cases there may be at times excess and at other times deficiency of blood supply. In most patients it is doubtful if the symptoms depend on disturbance of the circulation. There is probably an exhaustion of the nerve-cells, often in the brain, sometimes in the cord or in the sympathetic system. Their reactions are irregular, and disturbances of function and secretion result. Heredity exerts a grave influence in neurasthenia and spinal irritation, and is an important etiological factor in these diseases. In such cases the parents, frequently one, often both, have not strong and vigorous constitutions. The scenes and influences of childhood are sometimes at fault, and the neurotic condition may be developed where there is no hereditary tendency. Late hours are not beneficial to children, but predispose to the various neuroses. We do not see children romping and playing nowadays as was the habit years ago, but they go to evening parties, sit up late, and eat stimulating food at unseasonable hours. Too warm and ill-ventilated rooms are also doubtless predisposing factors in the production of nervous diseases. Our school-rooms are often kept at a temperature of 72° F. to 75° F. Children are also sent to school at too early an age, and are thus exposed to unfavorable influences at a perilous period in their nervous development, and frequently become the subjects of neurotic derangements.

Dr. J. J. Putnam said that he did not believe that there was any clinical or pathological advantage in trying to draw a line between neurasthenia and "spinal irritation," so called.

The former term, although vague, is a convenient one, but does not, like the latter, prejudge the pathological diagnosis. Our knowledge of the functions of the spinal cord does not justify us in referring the majority of the symptoms of so-called "spinal irritation" to the disease of that organ. On the contrary, the complicated cerebral functions, including those which have to do with the animal and vegetative processes, probably are affected in all the cases of this class, and this affection furnishes their predominating characteristics. It is on these functions that the evil influences transmitted by heredity mainly fall.

At the same time it is not to be denied that the ganglia of the spinal cord and sympathetic may share in the disorder. Dr. Putnam agreed with the reader and with Dr. Webber that the tendency has been to pass slightingly over the nervous symptoms to which diseases of the male genital organs may give rise, although it is true that congenital instability of the central nervous system is usually needed to furnish the material for these symptoms.

Dr. Douglass Graham said he thought we were inclined to be myopic in limiting our observation to reflex neurasthenia arising from irritation of the sexual organs alone, even if this were one of the most frequent causes. Pain or disturbance in any organ, especially below the diaphragm, he said, gave rise to reflex neurasthenia. Indeed, neurasthenia forms the background to the picture of all diseases and injuries whether of an organic or functional nature. The simplest form of neurasthenia is the natural and not unpleasant fatigue which results from an active and satisfactory day's work, from which we recover by food and sleep. After this comes the fatigue from which we do not recuperate as usual, the fatigue of being overworked, or in common parlance "played out," when rest and change are of the first importance. Thirdly, there are the continually wearied, wakeful, nervous business or professional men with numerous and varying ailments who have learned by experience that "the labor they delight in physics pain," and who find more relief in work than in rest Many physicians, doubtless, find themselves in this class, especially at this time of year. Then there are the neurasthenics who are such because they have no object in life, who are spoiled children with plenty to live on, and usually more, who can do what they please and cannot do what they do not please, who take delight in telling of all the eminent medical authorities whose care they have been under without benefit, and who are never happier than when they can be regarded as interesting, by trying some method of treatment that is novel to them, so that they may finally have the satisfaction of saying that it did them no good. A classification of neurasthenia based on causation might be indefinite.

Dr. G. L. Walton considered the brain the chief if not the only sufferer in the cases under consideration. Certainly such symptoms as cramps and pain in the back and loins could arise from the brain as well as from the cord, while the mental symptoms could only arise from the brain. Whether the spinal centres were implicated or not, enough had been said to show the non-existence of a distinct class of cases to be gathered under the term spinal irritation. In this case further division into pseudo-spinal irritation was absurd. He thought that all we could say by way of pathology at present was that there is a large number of nervous patients whose symptoms fall neither under hysteria nor hypochondria, whom we may name neurasthenical, locating the functional disturbance in the central nerve-cells. It remained to inquire if the sub-classification proposed would prove of clinical value. The impression conveyed by the paper was that the practitioner had only to ask himself whether the patient before him suffered from neurasthenia, spinal irritation, or pseudo-spinal irritation, and to regulate his treatment accordingly. In point of fact all these cases had to be treated as individuals, one needing rest, another exercise, and so on, any attempt to treat in classes being destined to prove a failure.

Dr. Morton Prince spoke as follows: There is one point which has been raised here on which I wish to say a few words, and that is the question of the cerebral origin of the symptoms of spinal irritation. I cannot agree with Dr. Putnam as to the cerebral origin of these symptoms. This view has lately been advanced with considerable force in an article by Dr. Walton. That some of the symptoms met with in spinal irritation, or neurasthenia (as you may choose to term it), such as vertigo, melancholia, anorexia, pains about the scalp, mental weakness and irritability, and many symptoms distinctly hysterical, are cere-

bral in their nature every one admits. About such symptoms there is no question. But that there is another larger group of symptoms which are of spinal origin, I believe there is also no question. Such symptoms are numbness and pricking in different parts of the body, pains over the spine, neuralgic pains of all kinds. In some cases of nervous prostration the cerebral symptoms may be so prominent as to predominate. Such cases have been denominated *cerebrasthenia*, in distinction from others where the cord and nerves are principally implicated.

When a functional nervous disease is met with, the symptoms presented are individually such as are caused by organic disease of the same segment, the difference being due not to the essential character of the symptoms, but to the method of grouping, the absence of some symptoms and presence of others, the onset, course, severity, etc. The symptoms met with in functional disease of the cord are such as occur in organic disease of the same part, and the symptoms observed in functional disease of the brain are such as occur in organic disease of the brain. In other words, the symptoms caused by functional or organic changes in a part are conditioned by the physiological functions of the part. For example, we get atrophy with the electrical reaction of degeneration in the muscles of the limbs from organic disease of the anterior cornua of the spinal cord and not from disease of the brain, and conversely we get aphasia from disease of the brain and not from disease of the cord. Now, the group of symptoms met with in pure spinal irritation(?) are such as are met with in organic disease of the cord and not of the brain; and therefore there is every reason to believe that their origin is spinal and not cerebral, and especially is this the case when in severe cases the symptoms are so similar to. nay, almost identical with, those produced by inflammation of the cord and its membranes, that it may fairly be questioned whether we have not to do with an organic and not a functional disease. I cannot help thinking that some cases which have been described as spinal irritation are in reality mild forms of inflammation.

I do not mean to say that some of these symptoms may not occur isolatedly in organic brain disease. That may happen with some symptoms, as, for example, anæsthesia and paralysis, which are common to both cerebral and spinal disease. But they do not occur in similar groups, and some symptoms are not present at all. In functional brain disease nearly every kind of symptom may be met with, but here the grouping is different, and it is a question whether some of the symptoms of functional brain disease, as hysteria, may not be dependent upon implication of the cord. In fact, this is much more likely than that the fundamental symptoms called spinal irritation are due to cerebral disease.

As this is a practical and important question, it may not be out of place here to refer to the argument advanced in the paper I have just mentioned. Pains in the back and sensitiveness over the spine are referred to irritability of the *cerebral* centres, because the centres for *feeling* are in the brain and not in the cord. A similar process of reasoning would as well explain the pains and tenderness complained of in sciatica, spinal meningitis and myelitis by a disease of the brain.

In regard to the differentiation of spinal irritation from neurasthenia, Dr. Prince was glad to hear Drs. Webber and Putnam express doubts as to whether they could be regarded as distinct diseases. If we examine the descriptions of spinal hyperæmia, anæmia, irritation, and neurasthenia given in the text-books, it would be found impossible to form any clear and definite picture of each as distinct from the others. Erb, to be sure, had described neurasthenia as characterized by being more common in the male sex, while the symptoms exhibited were principally sexual and motor weakness, sensory disturbances being less prominent. Spinal irritation, on the other hand, he had practically limited to females, while the sensory disturbances were very prominent. Ross, in England, had followed Erb's description. In America, on the other hand, the speaker thought that it was the general experience of neurologists that neurasthenia was greatly more common in women, while the group of symptoms included under the name was identical with that described in Germany and England as spinal irritation. It did not seem, then, that there were sufficient grounds for differentiating two diseases.

It is impossible that the disease could be occasioned by molecular changes in the spinal cord without having resort to the theories of anæmia or hyperæmia. Sigmund Mayer has made some investigations on the changes which physiologically occurred in normal nerves. His observations were made on the nerves of a large variety of animals and also of men, and showed that the peripheral nerves of vertebrates are not fixed structures, but are continually going through a process of degeneration, followed later by regeneration and a return to the normal condition. The changes observed were similar to those which take place in a nerve which has been divided or otherwise injured. These changes he believes to be constantly taking place, so that in every nerve may be found a number of fibres in this condition.

The thought naturally suggests itself whether these changes may not play some important part in the production of functional nervous diseases. Mayer suggests that this may be the case, and that those neuroses represented by transitory impairment of the sensory and motor functions are due to an increase in the normal number of degenerated fibres, and thinks that these changes are destined to become prominent factors in future neuro-pathology. If these results shall be confirmed by other observers, we have here a means of understanding how disturbances of sensation and motion such as are met with in neurasthenia may be caused by molecular changes alone, and this thought is reënforced by the fact, that while the anatomical changes which are said to occur in normal nerves are similar in kind to those observed in an injured nerve, differing only in degree, so, many symptoms met with in spinal irritation (neurasthenia), such as formication, numbness, pain, muscular weakness, etc., are similar in *kind* to those caused by injury to a nerve, though they differ in

degree, grouping, mode of onset, and persistency. If similar changes shall also be shown to take place in the central nervous structures, we shall have a complete theoretical picture of anatomical changes which may be at the bottom of neurasthenia.

The idea at present is merely speculative, but is interesting as suggesting a direction for future investigation.

Dr. T. A. DeBlois read a paper upon

TONSILLITIS.

Dr. J. W. Farlow opened the discussion upon this subject as follows: I agree with Dr. DeBlois in thinking that it is not possible to draw so sharp a line as is generally done between follicular, parenchymatous, and phlegmonous tonsillitis. When the parenchyma is affected, the follicles are also liable to be, giving rise to the secretion, more or less of which we find in most cases. Of two cases which begin and continue alike for several days, one may remain an ordinary case of tonsillitis, while the other goes on to the formation of an abscess.

The difficulty of knowing whether diphtheria or some other disease is to follow what looks at first like simple tonsillitis, has been well described by the reader, as also the need of "hedging" in communicating the diagnosis to the friends of the patient.

In cases seen early where there is much fever, I am in the habit of ordering a Dover's powder or aconite, to be followed by a saline in the morning. I have never satisfied myself that I had benefited a case by the use of guaiac or chlorate of potash.

I have never found astringent gargles of more use than very hot water. I direct the patient to fill his mouth at frequent intervals with hot alkalized water and hold it for several minutes. He is then to let the water run out by holding his head over a basin. This serves to remove the thick, tenacious secretion of which patients always complain, and which they find great difficulty in expectorating. Gargling is always a painful process in such a case.

I find relief from scarification, especially when the uvula is œdematous. When the presence of pus is probable, a deep incision, whether pus is found or not, makes the patient much more comfortable.

Dr. Prince thought it was a very interesting paper, and agreed with the reader in what he had said regarding the efficacy of the different varieties of treatment that were in use. For himself, he took a different view of the pathology of the affection from the reader, and believed in the *constitutional nature of the disease*. This was a point of considerable importance from the stand-point of treatment. He did not mean to say that every case of follicular tonsillitis was the expression of a constitutional fever. On the contrary, as in inflammations in other parts of the body, there was a local as well as a constitutional form.

Specialists who principally have to do with cases in dispensary and office practice meet with the former variety, while general practitioners see the constitutional form. The latter class of patients are usually too ill to leave their beds, much less the house, and are not found in out-patient departments of hospitals, or at least not till the disease has run its course. In this way the difference of opinion regarding the pathology of the affection can be explained. He thought that specialists were more inclined to see in follicular tonsillitis only a local affection, while general practitioners more commonly thought it of constitutional origin.

His own views of the constitutional nature of the affection are based upon various facts; among others, the severity of the constitutional symptoms observed. Even when associated with insignificant local inflammation, it is not uncommon to see high fever, great prostration, severe backache, sweating headache, anorexia, and stupor, followed by protracted convalescence, though the local trouble was so slight as hardly to induce the patient to use the gargles, etc., prescribed.

As a result of his studies he has found:

(1.) With slight local inflammation high fever and severe constitutional disturbance, and *vice versa*.

(2.) Slight local inflammation and slight increase of temperature, combined with severe constitutional symptoms, showing that the latter were not dependent upon the fever.

As "hospital sore throat" the disease was very common amongst internes and nurses in hospitals. He had found as a result of his inquiries that 63 per cent. of the internes in the Boston City Hospital had the disease, and that 59 per cent. of the nurses in the hospital at the time the inquiry was made had already had it. Many more would probably have it before their term of service was finished. Under these conditions the disease was usually very severe, more so than could be accounted for on the theory of a simple local inflammation.

The disease also occurred in epidemics, of which several had been reported. He had recorded two in a paper on this subject read before the Society about two years ago. In the epidemic form it was certainly constitutional.

The reader had said that he himself was liable to the disease and was frequently affected, but Dr. Prince believed that while this might be true of simple catarrhal sore throat, such as is met with in dispensary practice, the form to which he referred he believed usually occurred but once in the same individual.

In regard to treatment of this form, he had found the best to be painting the throat frequently, every hour or two, with co. tinct. benzoin. The tonsils must be thoroughly covered each time so as to leave a deposit of the yellow gum upon the surface. This always relieved the pain, and enabled the patient to swallow with comparative comfort. He had not yet met with a case which was not benefited by this, though of course it could not be inferred that the remedy would never fail. An ice-bag around the neck gave great relief to the head symptoms, while sponging the body with alcohol and water did the same for the backache. He also gave Dover's powders at night, and sometimes during the day. The constitutional symptoms, in his experience, called for more active treatment than the local manifestations.

Dr. Cobb mentioned a case of tonsillitis occurring

in a Swedish girl, accompanied with the appearances of abscess. On puncture, a small amount of pus was liberated, but the entire quantity was not evacuated. Within a week the girl was admitted to the City Hospital with scarlet fever. The question was asked if such cases were frequent.

Dr. DeBlois stated that one such case had recently come to his notice. The case was one of follicular tonsillitis with much depression and exhaustion of strength. The prognosis was of a grave character from the threatening nature of the symptoms, which led to the apprehension of some other more serious disease, and a few days later the patient suddenly expired while being brought down stairs to be taken to the City Hospital.

The following particulars in this interesting case were communicated by Dr. George G. Hayward, the physician attached to the dispensary district in which the patient lived.

DIPHTHERIA WITH COMPLICATIONS.

Patient, male, nineteen years of age, laborer, single, born in Ireland, had only been in this country a few months, was a strongly built man, of temperate habits. He first came under my charge December 12, 1883, and was treated at that time for dyspepsia and a heavy cold, from which he soon recovered, and after a few days went about his work again. I next saw him February 2, 1884, and learned that the day previous he had been to the Boston Dispensary Throat Department, where he had been treated, and that diphtheria had been suspected. At this time I found him with a high fever. Temperature 105° F., rapid pulse, tongue heavily coated, and all the soft parts covered with a distinct membrane, some of which was with difficulty removed. On further examination the body was found covered more or less thickly with a fine rose-colored eruption, more especially marked upon the lower part of the abdomen and thighs (where he was actually the color of a boiled lobster).

Diagnosis, was made of diphtheria with scarlatina. I afterwards learned that there had been scarlet fever in the house a few weeks previous.

Treatment, was Dover's powder at night, hot gargles, or rather douches, steamed flannels externally, changed often, and replaced by dry ones, steam inhalations, and as much steam as possible kept in the room, carbolic sprinkled about the floor. The mouth was swabbed out three times daily with hot water applications.

Diet. Milk, beef-tea, ice. Stimulants in milk occasionally. Nourishment was taken fairly well until the last day, so much so that it was only given by the mouth.

February 3. Temperature 104° F. About the same condition, breathing well, however; treatment continued.

February 4. Temperature 103.5° F. Seemed somewhat improved and brighter; more membrane removed, and it was stated that some more had been coughed up during the night.

February 5. Was called early, on account of alarming symptoms. Temperature 104° F. Face flushed; skin dull color; pulse slow and feeble, but breathing was good; voice very feeble. There was no indication for tracheotomy, which I had supposed might be required from what was told me of the symptoms.

The trouble seemed to be rather failure of the heart's action than anything else.

Dr. Kingman saw the case with me in consultation, agreeing with me as to diagnosis, and we decided it was best to send the patient *at once* to the hospital.

The heart was examined at this time as it had been several times previously, and no organic trouble could be detected.

Digitalis was at this time given, followed later by carbonate of ammonia, and the patient was ordered to the hospital. On leaving him he seemed considerably improved, and roused himself enough to shake hands and ask me to come and see him.

Brandy in milk was ordered before starting.

Instead of taking him at once, he was left three hours, and while being carried down stairs, having just reached the lower landing, he fell and died soon after. This would seem to indicate failure of the heart, and had it not often been previously examined, should have been inclined to suspect organic disease.

The case seems to me doubly interesting,—

(1). As a rare combination of diseases.

(2). As to the cause of death.

Dr. Farlow asked if any member had been able to observe any beneficial result from the employment of chlorate of potassium in tonsillitis.

In answer to Dr. Farlow's question as to the curative effect of chlorate of potassium in tonsillitis, Dr. V. Y. Bowditch said that he had no faith in its curative effect, but believed that hot gargles containing it often gave great relief both from the grateful sense of warmth and from the fact that it seems to cleanse the mouth from the thick secretions and disagreeable taste which are present. He also testified to the efficiency of the guaiac lozenges in relieving soreness of the throat, and recommended those of the London Hospital Pharmacopœia as being pleasant to the taste.

Dr. Disbrow asked Dr. DeBlois if there was any means of aborting the disease in its early stage. Speaking from his own experience, having suffered for many years with attacks of tonsillitis, he found by painting the tonsils with tinct. iodine comp. two or three times a day in its early stage, he prevented the formation of pus and cut short the disease. He had also found a strong solution of nitrate of silver useful, and had used the comp. tinct. guaiacum, but had not found any benefit from it. He had used, to hasten the formation of pus, an old domestic gargle composed of vinegar, water, sugar, and capsicum in conjunction with hot poultices externally. In follicular tonsillitis he had found painting with tinc. iron very useful. In regard to the guaiacum troches, they have been very useful in a case of irritative cough after other means had failed.

Dr. DeBlois thought that patients often swallow with less difficulty after the use of chlorate of potash, and this is certainly of benefit as far as it goes. If we can remove the pain and discomfort, the inflam-

mation will in many cases take of itself. Scarification is often of service in the same way. Troches containing guaiacum are also often of service in tonsillitis.

Dr. Harlow stated that in the opinion of an eminent Boston physician, now dead, guaiacum never did anybody any good except the apothecary.

Adjourned at 10.5 o'clock.

STATE MEDICINE.

THE ILLINOIS MEDICAL PRACTICE ACT.

Recent decisions in two cases, one under the act to Regulate the Practice of Medicine in Illinois, the other under the Dental Surgery Act, sustain the right of the State Board of Health to determine the status both of a college and of a practitioner. Under the latter act the Supreme Court refused the petition of Isaac Sheppard for a writ of mandamus to compel the State Board of Dental Examiners to issue him a certificate or license, based upon a diploma of the Indiana Dental College. The Board refused the license on the ground that the college was not a "reputable institution." It was argued that the law constitutes the Board, judges of the standing of a college, and there is no power of review vested in any other body. "If the Board should arbitrarily or unreasonably abuse their discretion, and refuse a license without any reason therefor, there is a remedy for such abuse of said discretionary power." But there was no ground for claiming that this was the case in the present instance. The Board in its judgment had decided that the curriculum of study and requirements for graduation of the Indiana Dental College were not such as to entitle it to be classed as "a reputable dental college;" and there is no power in that law, given to any person or body to review and set aside, or confirm, the exercise of the discretion by the board. The petition for a mandamus was denied.

In the case of the State Board of Health against C. Buel Rice, of Cincinnati, a graduate of the Medical College of Ft. Wayne, tried in the Sangamon County Court, the defense set up the plea that, being a graduate of a "legally-chartered medical institution in good standing," the defendant was entitled to a certificate of the Board; and that it was not competent for the Board to inquire into the moral or professional character of such graduates. On the part of the prosecution it was shown that charges had been presented to the Board, alleging that Rice was in the employ of, and associated with, the "K. & K. Surgeons," a firm of advertising quacks, from Cincinnati and elsewhere, and that, in various ways connected therewith, his conduct was unprofessional and dishonorable within the meaning and intent of the Medical Practice Act. Upon these charges the Board had refused to issue Rice a certificate until he had disproved the same. Instead of making any attempt at such disproof, Rice continued to practice; whereupon he was arrested for practicing without the necessary certificate. The facts were admitted by the defense, but, as already stated, the court was asked to dismiss the suit on the ground that it was obligatory on the Board to issue its certificate to the possessor of a genuine diploma of any "legally-chartered medical institution in good standing," regardless of the moral or professional status of the individual. This the court declined to do, but found the defendant guilty, and assessed a penalty of $50 fine and costs.

BOOK NOTICES.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE DISTRICT OF COLUMBIA, 1883.—This report by Dr. Smith Townshend is filled with the usual valuable tables for reference, and is prefaced by a congratulation on the part of the health officer that the efforts of his department were successful in preventing the introduction of small-pox into the city during its prevalence in an epidemic form in Baltimore in the fall and winter of 1882–83, which certainly shows watchfulness and energy when we reflect that the two cities are not forty miles apart, and communication is constant and varied. Washington it seems with its population of 191,980, has 15,611 sick poor cared for by this office, of which 10,264 are colored, and it costs $3,156.85 to furnish them with medicines. There certainly seems to be no waste expressed in these last figures. Dr. Townshend handles the subject of trade nuisances in a very practical and satisfactory manner; he devotes some space and illustrations to showing how the odors, etc., in making ammonia, illuminating gas and asphaltum are got rid of. With ammonia the gasses are passed in an upwardly-ascending (?) current over moist retarding surfaces and upward through a descending spray of water, so as to cool and wash the gases, and then turning them in their washed and cooled condition at an intense heat by forcing them into intimate contact with incandescent or ignited combustible and inflammable substances. To explain this properly of course requires reference to the illustrations. The apparatus has been in use for over a year and seems to have accomplished all that is claimed for it. With asphaltum the high heat used (700° F.) in refining it, results in the formation of hydrogen sulphuret, bisulphite of carbon and other very disagreeable gases. To destroy these gases combustion is employed by exhausting them from the covered kettle containing the heated asphaltum, through a close conduit into a furnace, where they are consumed. The thoroughness with which this is done remains yet to be seen.

Under the head of vital statistics the tables show for the year ending June 30, 1883: *Deaths*, 4,286, of which 3 are set down to smallpox; 24 to croup, 85 to diphtheria, and 125 to scarlet fever. Consumption is credited with 730, but of these less than 17 per cent. were white natives of the District.

Births, 851 white males, 833 white females, 715 colored males, 715 colored females, in all 3,116.

Marriages, 607; whites; 235 colored; 1 mixed. The register shows 448 practicing physicians within the District, of whom 15 are women.

One of the most interesting features of this report is the fact that the diseases, to a certain extent, are located on maps showing the different squares of the city.

FOREIGN CORRESPONDENCE.

LONDON, May, 1884.

At the annual meeting of the City Orthopædic Hospital in Halton-Garden, it was stated the past year's working of the charity was the most satisfactory for many years, showing that as many as 2,500 patients had been admitted and twelve extra beds had been provided. It was stated that since the opening of that and other orthopædic institutions the number of deformed poor walking about had become appreciably less.

A gargle made of strong black tea and used cold, night and morning, is now the fashionable preventive against falling a victim to sore throat during the cold winds of the spring.

The University Tercentenary celebration at Edinburgh has passed off without a hitch, largely owing to the authorities having wisely altered their original plans so as to allow the students to take a prominent part in the entertainments. The young gentlemen, appreciating the justice of this arrangement, were on their best behavior, and only created a very moderate disturbance when some of their guests abused their hospitality by inflicting on them long speeches in foreign languages. During the meeting attention was drawn to the unnecessarily high salaries which the Edinburgh professors enjoy. At Oxford or Cambridge the busiest "Don" is only able to make about £1,000 a year. In Edinburgh professors can usually manage to earn £2,500, a difference which is not to be accounted for by the superior fame of the northern teachers. At Oxford and Cambridge the income of all the teachers is fixed by law; at Edinburgh they are allowed to make what they can out of their pupils.

The inaugural lunch of the newly formed Society for the study and Cure of Inebriety has just passed off in a most successful manner at the premises of the Medical Society of London. The Society is to consist of medical men as members, and laymen as associates, for the study of the various physiological and psychological causes of inebriety. The president is Dr. Norman Kerr, who occupied the chair, and in his inaugural address after the luncheon said that although the Society had only been in existence six months it already numbered 67 members. He went on to say that so far from everything being known about intemperance, there was nothing indeed accurately known, that even of the action of alcohol on the healthy living body our knowledge is limited, and there is a vast field of inquiry to be covered by close and patient investigation ere the truth can be elucidated. Inebriety was a disease, but he had no sympathy with those who ignored its moral and spiritual aspects and recognized only the physical. To say that addiction to drinking was always and never anything else than a physical disease was not science but nonsense. He would not dogmatise on disputed points as to whether inebriety was a sin, a vice, a crime or a disease. In his judgment it was sometimes all four, but oftener a disease than anything else, and even when anything else generally a disease. The object of the society was to investigate, by strictly scientific methods, the various causes, and to educate the professional and public mind to a knowledge of those causes and to the recognition of the physical aspect of habitual intemperance. Among the associates of the undertaking are the Earl of Shaftesbury and McTool, the actor.

Dr. Ebstein's much talked-of treatise on the cause and cure of obesity has appeared in an English dress, and is attracting much attention, especially among the ranks of those who carry "too much weight." Professor Ebstein agrees with Mr. Banting in advocating regimen alone as the only safe cure for an inconvenience which most frequently results from too much food. But he adopts a dietary widely different from those prescribed by Mr. Banting, or rather Dr. Harvey, the practitioner whose maxims that gentleman enlarged and made his own. The crucial difference is on the question of eating fat. Fat is the sheet-anchor of Dr. Ebstein. No dyspeptic, we are assured, need fear fat so long as he does not take too much, and, indeed, so admirable is that substance, long dreaded by delicate stomachs, that, by checking nitrogenous waste, it appeases thirst as well as hunger, a fact, in part at least, known even by Hippocrates. Mr. Banting permitted any fish except salmon, but Dr. Ebstein encourages his patients to enjoy, "in moderation, of course," not only this dish but *paté de foie gras* and similar delicacies. Sugar is tabooed as well as sweets of all kinds, and potatoes in every form he prohibits unconditionally. Three to four ounces of bread per day are permitted, and of vegetables, asparagus, spinach, cabbage, and the various legumes rich in albumen are allowed. Of meats he excludes none. He allows three meals a day, but on no condition must there be an afternoon tea or snacks between meals. Alcohol drinks are allowed to the extent of two or three glasses of light wine at dinner, but beer is barred unless, indeed, the permitted carbo-hydrates be correspondingly restricted, though then the ale accepted as an equivalent must be extremely moderate in amount. The diet of a cured patient was something like the following: "For breakfast, a large cup of black tea, without milk or sugar, and two ounces of bread with plenty of butter, at half-past seven in winter, or at six or half past six in summer. For dinner, between two and three o'clock, soup often with marrow, four to six and a half ounces of roast or boiled meat, vegetables in moderation, but no potatoes, and almost no saccharine turnips. After dinner a little fresh fruit or a salad, or stewed fruit without sugar, with two or three glasses of light wine, followed by a large cup of black tea without milk or sugar. Supper of black tea, fat roast meat or eggs, or some ham, fish, a little

well-buttered bread, with cheese and fresh fruit formed the concluding meal, at the hour of seven or eight." Mr. Banting's rule was opposed to the best received physiological principles, and Dr. Ebstein's has yet to win the approval of the scientific world.

Dr. Koch, with the other members of the German Cholera Commission, have just returned after nearly nine months' absence in Egypt and India. Dr. Koch will shortly receive a professorship in the Berlin University.

The following extract is from the *Scots Magazine*, March, 1755: "There was presented to the Empress of Russia a laboring man who has had two wives, the first of whom brought him four times four children at a birth, seven times three, and ten times two. The second wife has lain-in seven times; the first time she brought forth three children, the other six times two. The whole number of children by the two wives amounts to seventy-two. G. O. M.

MISCELLANEOUS.

PIERRE, Hughes County, Dakota,
May 21, 1884.

EDITOR OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION:

At a regular meeting of the Central Dakota Medical Society, held in Pierre, May 7, 8 and 9, the following preamble and resolutions in regard to the death of the eminent surgeon, Professor Samuel D. Gross, were adopted:

WHEREAS, During the session of the Central Dakota Medical Association, held in Pierre, May 7, 8 and 9, news reached us of the death of the eminent surgeon, Professor Samuel D. Gross, of Philadelphia, who has been at the head of the profession in America for the last half century, and whose numerous works on surgery are the leading text-books in Europe and America for both students and practitioners, and who has been one of our most faithful and earnest teachers for the last fifty years; therefore be it

Resolved, That we express most profound regret and sorrow for so great a loss to the profession, and the greatest sympathy for the bereaved family and the many personal friends who have been associated with him as teachers and students during his life-work.

Resolved, That a copy of these resolutions be furnished the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION for publication.

A. J. DICKINSON, M.D., President.
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A RARE CHANCE.—A physician with an established practice of twenty years desires to sell property and practice. Property new and first-class, pleasantly located in town of 1,000 inhabitants, on railroad. Good schools and churches. Practice will average from $3,000 to $4,000 per year. Price $4,000. For particulars address No. 30 East Ohio street, Indianapolis, Ind., or inquire at this office.

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According to a resolution passed May 9, 1884, at the Washington meeting, continuous payment of Annual Dues is required, to retain permanent membership.

RICHARD J. DUNGLISON, M.D.,
Treasurer.

Lock Box 1274, Philadelphia, Pa.

NEW BOOKS.

Ziegler, Ernst. A Text-book of General Pathology, Anatomy and Pathogenesis; translated and edited for English students by Donald MacAlister. 12mo, 371 pp. New York: W. Wood & Co. (Wood's Library of Standard Medical Authors). Cloth, $1.25.

Fothergill, J. M. The Physiological Factor in Diagnosis; a work for Young Practitioners. 2d edit. 8vo, 240 pp. London: Bailliere. 7s. 6d.

Hetzman, C. Microscopical Morphology of the Animal Body in Health and Disease. Wilh 380 original engravings. 8vo, 850 pp. London: Trübner. 31s. 6d

Hutchinson, J. Illustrations of Clinical Surgery. Flasc. 16. London: Churchill. 6s. 6d.

James, J. B. Aids to Practical Physiology. 12mo, 60 pp. London: Bailliere. Sewed, 1s.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT UNITED STATES ARMY, FROM MAY 24, 1884, TO MAY 29, 1884.

Hall, Wm. A., Captain and Assistant Surgeon, assigned to duty at Fort Stockton, Texas. (Par. 1, S. O. 63, Headquarters Department of Texas, May 19, 1884.)

LIST OF CHANGES IN THE STATIONS OF MEDICAL OFFICERS, U. S. NAVY, FOR THE WEEK ENDING MAY 31, 1884.

Passed Assistant Surgeon F. Anderson, ordered to Navy Yard, New York.

Passed Assistant Surgeon H. G. Beyer, detached from Coast Survey Steamer "Blake," ordered to Smithsonian Institute for special duty.

Past Assistant Surgeon W. H. Rush, detached from U. S. S. "Despatch," and ordered to Coast Survey Steamer "Blake."

Past Assistant Surgeon L. G. Heneberger, detached from Navy Yard, New York, ordered to U. S. S. "Despatch."

Past Assistant Surgeon S. H. Griffiths, ordered to U. S. S. "Lancaster," on expiration of leave of absence.

Past Assistant Surgeon M. D. Jones, detached from Naval Hospital, New York, and resignation accepted—June 15, 1885.

Surgeon I. C. Wise, detached from Academy, and ordered to U. S. S. "Constellation."

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Place of meeting, 1885, New Orleans, La.; Time of holding meeting, last Tuesday in April.

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